





TENTH ANNUAL REPORT



ON

INTRODUCTION OF DOMESTIC REINDEER INTO ALASKA,

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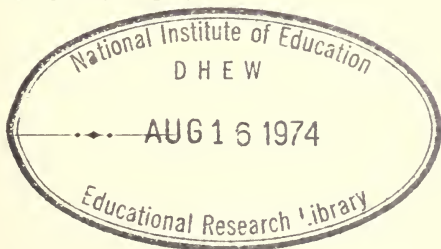
MAP AND ILLUSTRATIONS,

BY

SHELDON JACKSON, LL. D.,

GENERAL AGENT OF EDUCATION IN ALASKA.

1900.



WASHINGTON:

GOVERNMENT PRINTING OFFICE.

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IN THE SENATE OF THE UNITED STATES,

December 4, 1900.

Resolved, That the Secretary of the Interior be directed to transmit to the Senate the report of Dr. Sheldon Jackson upon "The introduction of domestic reindeer into the district of Alaska," for 1900.

Attest:

CHARLES G. BENNETT, *Secretary*.

LETTER OF TRANSMITTAL.

DECEMBER 5, 1900.

SIR: I have the honor to transmit herewith the report of the United States agent for education in Alaska, Dr. Sheldon Jackson, upon the introduction of domestic reindeer into the district of Alaska, for 1900, in accordance with the resolution of the Senate requesting said report.

I herewith return to you the resolution of the Senate.

Very respectfully, your obedient servant,

W. T. HARRIS, *Commissioner*.

THE SECRETARY OF THE INTERIOR.

TABLE OF CONTENTS.

	Page.
Action of United States Senate.....	2
Letter of the Secretary of the Interior to the President of the Senate.....	3
Annual report of Dr. Sheldon Jackson.....	9
Effort to charter a steamer.....	9
The ravages of an epidemic.....	10
Personnel.....	11
Stations.....	12
Reindeer herd, Eaton Station.....	14
Reindeer herd, Golovin Bay.....	14
Reindeer herd, Teller Station.....	15
Reindeer herd, Cape Douglas.....	16
Reindeer herd, Cape Prince of Wales.....	16
Reindeer herd, Point Hope.....	16
Reindeer herd, Point Barrow.....	17
Reindeer herd, Gambell.....	17
Reindeer herd, St. James Episcopal Mission.....	18
Hoof disease.....	18
Dogs.....	18
Interference of white men.....	18
Laws relating to reindeer.....	18
Moss burning.....	19
Reindeer distribution.....	20
Purchase of reindeer in Siberia.....	21
Reindeer statistics and ownership.....	22
Reindeer mail service.....	24
Canadian interest in reindeer.....	25
Reindeer in Black Forest, Germany.....	25
Telegraph lines in Alaska.....	25
Revenue-Cutter Service.....	25
Itinerary.....	26
List of officers on U. S. revenue cutter <i>Bear</i>	26
Revenue cutter <i>Bear</i> in the ice.....	29
Wreck of the bark <i>Alaska</i>	30
Wreck of the bark <i>Hunter</i>	32
Visit to Eaton Station.....	33
Mr. T. L. Brevig takes charge of Teller Station.....	33
Trip to Siberia.....	36
Reindeer landed at St. Lawrence Island.....	37
Laplanders received on board U. S. transport <i>Lawton</i>	38
Assistance of American consuls in Europe.....	39

APPENDIX.

Application for transportation of general agent of education by revenue cutters in Alaskan waters.....	45
--	----

	Page.
Commanding officers of the revenue cutters instructed by the Secretary of the Treasury to furnish the general agent of education with transportation	46
Annual Report of Eaton Reindeer Station, by Dr. F. H. Gambell, M. D., superintendent	48
Daily journal of Eaton Reindeer Station	58
Employment of S. Newman Sherzer	80
Dr. Gambell's trip to Cape Prince of Wales	81
Report of trip to Cape Prince of Wales and Synrock	81
Dr. Gambell's return to Eaton Station	82
Laplanders ask an increase of salary	83
Mail service	84
Herders for special duty	85
Appointment of Messrs. Brevig, Willard, and Lindseth	86
Building telegraph line	87
Condition of reindeer herd at Eaton Station	87
Killing reindeer	88
Reindeer wanted at Nulato	90
Reindeer mail contract, Kotzebue Sound	89
Medical report of hoof disease, by Dr. Gambell	90
Hendricks & Van Note ask for reindeer, harness, and sleds for carrying mail	93
Report of reindeer herd, Golovin Bay	95
Statistics, reindeer herd at Golovin Bay	96
Report of reindeer herd at Cape Prince of Wales	96
Report of reindeer herd, Point Barrow	97
Report from St. Lawrence Island	98
Supplementary report, Gambell, by Dr. Lerrigo	132
Supplementary report, Gambell, by W. F. Doty	133
Journey from Point Barrow to Port Clarence with reindeer	134
Payment of bills connected with Point Barrow expedition	139
Mr. T. L. Brevig arrives at Teller Station	139
Reindeer at Teller	140
Epidemic among natives	141
Trouble with dogs	142
Herd at Teller Station	143
Teller City growing	144
Teller herd removed to winter pasturage	145
Hoof disease in Teller herd	145
Deputy marshal at Port Clarence notified that the reindeer herd was in charge of Mr. T. L. Brevig	146
Death of Tumasock	146
Reindeer in Kuskokwim Valley	147
Report on reindeer barter goods	148
Report of Captain Tuttle of trip to Point Barrow	152
Correspondence concerning the charter of a steam schooner in Japan	153
Transportation of Lapps on U. S. army transport	157
Canadian interest in reindeer	158
Message to Congress from the President of the United States relative to the expedition to the Arctic Ocean	160
Reindeer as a factor in transportation in Alaska, Mrs. Henderson	159
Reindeer for Roman Catholic Mission Nulato	162
Military request for use of reindeer	164
Reindeer relieve two detachments of United States infantry	164
Index	165

ILLUSTRATIONS.

	Photographer.	Number.
Eaton Reindeer Station:		
Buildings at	Norman	1
Starting with the mail for Nome		2
King Island:		
Natives in boats	Norman	3
Part of village	Norman	4
Village of Cliff Dwellers	Norman	5
Little Diomedé Island, natives	Norman	6
Marshall, William, and two Laplanders	Spear	7
Point Barrow:		
Public school	Marsh	8
U. S. R. C. <i>Bear</i> in ice pack	Wood	9
St. Lawrence Island, graveyard	Norman	10
Teller Reindeer Station, graveyard at	Norman	11
Residence, Swedish Evangelical Mission, Unalaklik	Hawley	12
Church and school house, Golovin Bay	Hawley	13
Residence, W. T. Lopp, Bering Straits	Hawley	14
Residence, Swedish Evangelical Union Mission, Golo-		
vin Bay	Hawley	15
Reindeer on Siberian Beach	Hawley	16
Graveyard, St. Lawrence Island	Hawley	17
SIBERIA.		
Baroness Korfg Bay:		
Carrying reindeer from herd to boat	Spear	18
Catamaran at	Spear	19
Interior of tent at	Spear	20
Natives at	Spear	21
Native storehouses at	Spear	22
Do	Call	23
Reindeer crossing river	Spear	24
Cape Serdze Kamen, natives	Norman	25
Glassnapp Bay:		
Camp of deer-men	Spear	26
U. S. R. C. <i>Bear</i> at anchor	Spear	27
Governor of Kamchatka	Call	28
Karaga Bay, group from U. S. R. C. <i>Bear</i> , and natives	Call	29
Petropavlovsk:		
Children at	Spear	30
House in	Call	31
Inner and outer harbors	Spear	32
International cemetery	Call	33
Monument to La Perouse	Spear	34
Obelisk commemorating Russian naval victory	Spear	35
Street scene in	Call	36
Town of	Spear	37
Taking the baby's picture	Wood	38
Map of Alaska		At end.



TENTH ANNUAL REPORT

ON THE

INTRODUCTION OF DOMESTIC REINDEER INTO ALASKA.

DEPARTMENT OF THE INTERIOR,
BUREAU OF EDUCATION, ALASKA DIVISION,
Washington, D. C., December 31, 1900.

SIR: I have the honor to submit to you my Tenth Annual Report on the Introduction of Domestic Reindeer into Alaska. At the beginning of the year, learning that the revenue-cutter *Bear*, which has so largely in the past furnished the transportation of reindeer from Siberia to Alaska, would have less time than usual for this work during the coming season, owing to the additional work imposed upon it by the large influx of miners and others to Cape Nome, it was thought best to try to secure the charter of a steam schooner that could be employed during the whole season in procuring reindeer.

Correspondence was had with leading shipping firms in San Francisco and on Puget Sound. It was found that in anticipation of the unusually large business that would be transacted between Pacific coast ports and Alaska every available vessel had been chartered. Finding it impossible to secure the desired vessel on the Pacific coast, a conference was had with Commander Katsuro Narita, I. J. N., naval attaché Japanese legation at Washington, with reference to the possibility of securing a suitable vessel in Japan. Receiving encouragement from him, I applied through the Secretary of State to the consul-general at Yokohama, Japan, to ascertain if a suitable vessel could be obtained in that quarter, to which he cabled in reply: "Can not charter steamer Japan." Failing in securing an independent vessel, Captain Shoemaker, Chief of the Revenue-Cutter Service, with the approval of the Secretary of the Treasury, arranged for the cutter *Bear* to make one trip during the summer for reindeer.

Later in the season, when other plans had been formed and could not be conveniently changed, the consul-general in Japan secured the offer of a suitable vessel, but it came too late to be made available for the present season.

Subsequent events proved that perhaps it was providential we had failed to secure the proposed steamer, for upon reaching the coast of Siberia, where we had usually been able to purchase reindeer, we

found the larger proportion of the population either sick or recovering from an epidemic of la grippe, measles, and pneumonia, which swept through that region during the past season. Although the cutter *Bear* cruised for several hundred miles along the coast of Siberia, calling at the various camps of the reindeer men, yet we were able to secure but 29 head of reindeer.

At nearly all of the herds many of the herders were sick, a number had died, and the people were in a discouraged and despondent condition, so that men could not be found to drive up and catch the deer and the owners were unwilling to sell.

This epidemic extended the whole length of the Aleutian Islands, along both the American and Asiatic shores of Bering Sea, to Cape Prince of Wales and into the Arctic, along the Siberian coast beyond Cape Serdze Kamen, and up the American side to Point Hope. Also on the Lower Yukon River.

The death rate was mainly confined to the aboriginal population, they being ignorant or unwilling to take proper care of themselves, and in some cases where the physician was in attendance they could not be made to follow his directions. The result was that hundreds died.

In the village at Indian Point, Siberia, it is estimated that one-half of the entire population died. This is also true of the Eskimo in the neighborhood of Teller Reindeer Station on the American side. Out of the population of 300 on St. Lawrence Island, 36 died within a month. Forty per cent of the natives at Nulato and Koserefsky, Yukon River, died during August. Parties of miners and prospectors traveling through the region would come upon deserted native huts or tents containing unburied dead bodies. In some cases they found young and helpless children whose parents had died, leaving them entirely without support.

In one case a young baby was found alive in a hut trying to draw nourishment from the breast of its dead mother. At Port Clarence a dying native, summoning up his remaining strength, seized his gun and shot dead the Indian doctor, who was himself sick and would probably have died in a day or two if he had not been shot. Distressed natives in the neighborhood of Nome were gathered into a camp outside of the military post where they could be attended by the military surgeon. At the Teller Reindeer Station and at the several mission stations in that region children whose parents had died were gathered into an orphanage established by the missionaries.

This epidemic proved so fatal as to cause a panic, and whenever a person died the friends fled from the house, leaving the remains unburied, or if in the neighborhood of a station to be cared for by the missionary. This epidemic occurred during the usual fishing season, when the natives are accustomed to dry their winter supply of fish; consequently very few fish were caught, and the opening winter has found them without a supply of food. As far as possible to prevent

the coming starvation, General Randall, U. S. A., wrote the Secretary of War; Captain Tuttle, Revenue-Cutter Service, the Secretary of the Treasury, and Governor John Brady the Secretary of the Interior, presenting the destitution among the natives and uniting in the request that Lieut. D. H. Jarvis, Revenue-Cutter Service, should be detailed and authorized to supply provisions, and use the revenue cutter *Bear* to distribute them at central points as far as the *Bear* could reach them during the remaining portion of the season. Consequently small supplies of food have been left with the missionaries, Government teachers, and Government officials at such central points as they reside. These missionaries, teachers, and officials will act as local distributors under the direction of Lieutenant Jarvis. But notwithstanding the provision for winter, grave fears are entertained that there will be many natives so distant from these relief stations that they can not be helped and that there will be much suffering and death in consequence.

PERSONNEL.

In the absence, on account of sickness, of Mr. William A. Kjellmann Dr. Francis H. Gambell, M. D., was appointed superintendent of the reindeer stations, with permission to select his own assistant, which he did in the person of Mr. S. Newman Sherzer.

Mr. Sherzer served with acceptability from October, 1899, to March 1, 1900. On March 1 he was released from the duties at the station in order to take charge of carrying the United States mail with reindeer semimonthly between Eaton Station and Nome.

Mr. Ole Olesen Bahr, having commended himself to the management by his efficiency, was made foreman of the Laplanders at the salary of \$25 per month and rations.

On the 31st of January, 1900, at the close of the year for which they were engaged, the following herders and employees left the service at the Eaton Station:

Messrs. Per Larsen Anti, Per Andersen, Lars Larsen Anti, Mrs. Per Andersen, Nils Persen Bals, Aslak Johnsen Bals, Anders Johanessen Balto, Isak Andersen Bango, Anders Klemetsen Biti, Marit L. Biti, John Eriksen Eira, Marit Eira, Aslak Aslaksen Gaup, Johan Peter J. Nango, Per Josefsen Porsanger, Ole Johannessen Pulk, Johan Peter P. Rista, Nils Persen Sara, Isak Mikkelsen Tornensis, Anders Persen Utzi. A number of them went into the mines at Nome, and others remained at the station waiting an opportunity to return to Lapland in the fall.

Through the kindness of Gen. George M. Randall, U. S. A., commanding the Department of Alaska, and Mr. William S. Pinkston, quartermaster's agent in charge of the U. S. A. transport *Lawton*, such an opportunity was afforded on the 8th of August, when Captain Pinkston received on board of the *Lawton*, for transportation to Seattle, Aslak A. Gaup, wife, and infant; Johan Nango, wife, and two

children; Aslak Bals, wife, and two children; John Eira and wife; Anders Biti, wife, and infant; Alfred Hermausen, wife, and infant; John Rista and wife; Lars Larsen Hatta, Per Porsanger, Anders Utzi, and Isak Tornensis.

Messrs. Johan Isaksen Tornensis, Per Mathisen Spein, Alfred Hermausen, and Ole Olesen Bahr were employed from February 1 to the close of the fiscal year, June 30, 1900. Mr. Jacob Larsen Hatta and family remained with the herd at Point Hope until fall, when he was returned on the revenue cutter *Bear* to Nome.

Mr. Lars Larsen Hatta, who assisted Mr. Marshall in driving the herd from Point Barrow to the Teller Reindeer Station, finally reached the Eaton Reindeer Station March 4, 1900. His time having expired, he was discharged.

Mr. Lars Larsen Anti, who was attacked with rheumatism upon his first arrival in Alaska in the spring of 1898, died at Eaton Reindeer Station April 22, 1900.

For the fiscal year ending June 30, 1901, the list of employees is as follows:

Eaton Station.—Dr. Francis H. Gambell, M. D., superintendent; Messrs. Frederick Willard and J. T. Lindseth, assistants; Messrs. Ole Olesen Bahr and Per Mathisen Spein (Lapps) and 2 herders (Eskimos).

Teller Station.—Rev. Toief L. Brevig, manager, and Messrs. Johan Isaksen Tornensis and Per Larsen Anti, herders.

Gambell Station.—Dr. P. H. Lerrigo, M. D., manager, and Messrs. Nils Persen Sara and Ole Krogh, herders.

Bethel, or Nulato.—Messrs. Nils Persen Bals and Isak A. Bango, herders.

When, on July 1, it became necessary to reemploy those of the Lapps who were needed in connection with the herds, they demanded a large increase in their wages. Some of their companions, at the expiration of their service with the Government, had gone into the mines and made from \$1,000 to \$100,000. This had greatly excited all the Lapps, and to keep any with the herd I found it necessary to increase the wages to \$500 annually, with rations and clothing.

Of the 63 herders and their families, making an aggregate of 113 Norwegians, Finns, and Laplanders brought to the United States in 1898 in connection with the reindeer enterprise, 3 men have died; 12 men and their families, aggregating 24 people, have returned to Lapland, leaving 86 of the party still in this country. Of these 86, from 17 to 20 have made fortunes in the gold mines since the expiration of their term of service with the Government.

STATIONS.

Eaton.—The station buildings are in good condition. The fall was passed in freighting the supplies from the seacoast up the Unalaklik River 8 miles to the station. As the employees are frequently compelled to remain over night at the mouth of the river, a double log house was erected at the side of the warehouse for their accommo-

dation. A log house was also erected at Cape Denbigh for the storing of supplies and the shelter of the herders at the summer pasturage.

The station being on the direct winter route between Dawson, the Yukon Valley, and Nome, the long winter was enlivened by many visitors. It is estimated that a thousand miners called, many of them remaining over night, and some of them receiving medical attention.

The station post-office was the distributing point for the mails going north to Kotzebue, south to St. Michael, west to Golovin, Nome, Teller, and Cape Prince of Wales, and east to Yukon Valley, Dawson, and the States.

A large number of young reindeer were broken to harness; also a large number of sled deer were furnished the mail carriers. A quantity of timber was got out and prepared for hames. A number of pulkas (reindeer sleds) and sets of reindeer harness were made both for the use of the station and also for other stations where suitable lumber could not be obtained.

The school was taught by Mr. Sherzer, and was attended by both Lapp and Eskimo children. The children made marked progress in acquiring the English language.

The health of the employees was generally good. There were two cases of typhoid fever, both of which recovered. Mr. Lars Larsen Anti, who had been an invalid during his entire stay in Alaska, died on the 22d of April.

The large headquarters building at the station, removed to the mouth of the river, would make a suitable building for the accommodation of the large number of orphans that the recent epidemic has created in Alaska, if the Government shall undertake their care and education.

Teller.—This station remained closed for two seasons; the buildings have been greatly abused by transient white men who have occupied them during the winter, and in consequence are very much out of repair. As there was no fund from which a watchman could be hired, I tried the experiment of allowing a prospector the use of one of the buildings in 1898–99 in consideration for his caring for the property. Although he was well recommended as worthy of confidence, he abused his trust. During the winter of 1899–1900 Mr. C. E. Chard, recommended by a responsible business firm in Seattle, was allowed the winter use of a building in consideration of looking after the others. He attempted to do his duty, but was overpowered by others, among them being a United States deputy marshal. The trespassers took charge of the main building, established a saloon kept by an Eskimo woman, wintered their dogs in one end of the building, and occupied the other portion themselves.

During the summer the Rev. T. L. Brevig and family, who had formerly been at the station, returned and took possession, greatly to the joy of the neighboring Eskimo. And his coming was opportune,

both for the people and the reindeer herds, as an epidemic of measles, la grippe, and pneumonia had just commenced, which in the next few weeks caused the death of one-half of the natives.

As soon as it was known that Mr. and Mrs. Brevig had returned the natives that were in the vicinity removed to the station to receive medical aid and sympathy. Many parents died, leaving helpless and destitute young children. Mr. Brevig took the children into his own home, establishing an orphanage.

The prevailing sickness also fell heavily upon the Eskimo herders Tautook, Dunnak, and Sekeoglook, who lost their wives and some of their children. Wocksock, his wife, and all his children but one died, leaving a little boy the sole survivor of the family. Wocksock's reindeer herd will be cared for by the Government for his boy.

In this connection it is appropriate to call attention to the death of Tumasock, who died of consumption at the Indian school, Carlisle, on April 8. She was one of a band of young people taken from this station to Carlisle in the fall of 1897. She was greatly beloved by her associates and died rejoicing in Jesus.

HERDS.

Eaton Reindeer Station.—On July 1 the herd numbered 588 reindeer, 385 being old deer and 203 fawns. In the herd 423 belong to the Government, 80 to the St. James Episcopal Mission, 65 to Moses, 20 to Martin.

Those belonging to the St. James Mission consist of 25 males, 16 females, and 39 fawns. In the summer they are pastured at Cape Denbigh and in the winter at the station. At the neck of the peninsula of which Cape Denbigh is the southwestern extremity a fence $1\frac{3}{4}$ miles long was thrown across from sea to sea, making an inclosure of the peninsula. This has greatly lessened the work of the herders. A house has also been erected for the use of the herders and the storage of provisions.

This section having proved so excellent for grazing during the last three seasons, an effort will be made to have it set apart by the Government for this purpose.

On the 5th of November, 1899, 260 deer were taken from the herd to help repay those that had been borrowed by the Government from Synrock and Cape Prince of Wales in the winter of 1897-98. A number of sled deer were employed in carrying the mail between St. Michael, Eaton, Golovin, Kotzebue, and Nulato.

The unusual demand for sled deer stimulated the work of breaking in and training new deer to harness. In the list of deaths but 2 reindeer are reported as dying of foot disease. The casualties from all causes numbered 35.

Golovin reports 212 old deer and 78 fawns in the herd. Of these 147 belong to the Swedish Mission and 143 to the Eskimo herders. Mr. Hendricksen reports the herd as doing well.

On the 24th of November, 1899, Dr. Gambell, acting under instructions, took from Golovin 90 bucks, 126 does, and 67 fawns, making 283 in all. Of these 98 belonged to the Government from the original loan, 80 to the Episcopal Mission at the mouth of the Tanana, and 65 to Moses (native). The casualties during the year amounted to 16, including 5 killed for food.

Owing to the number of saloons which have started up this summer at Golovin, the Swedish Evangelical Union Mission, which has the deer in charge, propose moving their mission to a point 8 miles distant, behind Carolyn Island. A large number of natives died this season during the prevalence of the epidemic.

Teller Reindeer Station.—On December 9, 1899, Dr. Gambell, superintendent of reindeer, inspecting the herds at Port Clarence, found 23 deer which belonged to the Government, 21 of which were placed in charge of Dunnak and 2 in charge of Tautook.

In January, 1900, William Marshall, who was in charge of the herd of reindeer driven from Point Barrow, left with Tautook and Dunnak for the Government 260 head. No report has been received from the Eskimo herds belonging to Tautook, Sekeoglook, Wocksock, and Tat-pan.

Superintendent Gambell, in his tour of inspection December 9, 1899, writes of them: "The herd at Port Clarence and control of the same gave me more pleasure to witness than any herd and its control elsewhere. To know that these (Eskimo) people took as much pride in their herd and gave them as much attention as they did demonstrated to me the fact that they are a very competent people, and that your original idea and purpose is being realized. I trust that more may be placed in the hands of these suffering people soon."

The Rev. T. L. Brevig, who had been connected with the reindeer station for several years, returned in July, 1900, after a two years' sojourn in the States. His coming was most timely. An epidemic had broken out among the people, and in their distress they flocked to the station.

All the herders and their families were sick, and unable longer to follow the herd, they had abandoned it, with the exception of Dunnak, who remained until too weak to do more. As the herd was about to be scattered, Mr. Brevig arrived, accompanied by Johan I. Tornensis, an expert Lapp herder, who was at once sent out to the herd. The same disease that prostrated the herders, so that they could not keep as vigilant a watch as usual, also caused the death of many of their neighbors. Whole families died. This released from control many native dogs, who wandered through the country in search of something to eat and gave unusual trouble to the herd.

To add to the difficulties, the whole region around Port Clarence was overrun with prospectors, a few of whom manifested a disposition to interfere with the herds. To prevent this, Capt. Francis Tuttle, R. C. S., commanding revenue cutter *Bear*, and himself a United

States commissioner, officially called upon the United States deputy marshal resident at Bering City to use his official influence for the protection of the herds.

The Teller herds report more cases of foot rot than those at any other station, due doubtless to the fact that they were kept much of the summer on swampy ground.

With the presence of Mr. Brevig in charge of the herds we may expect a fuller report next year.

Cape Douglas.—In the summer of 1899 I had purchased in Kamchatka and delivered to Charley Antisarlook 42 head of reindeer; on December 1 Superintendent Gambell, under instructions, had added to Charley's herd 286 head, making the 328 head which the Government owed him for the herd borrowed in the winter of 1897-98 for the relief of the ice-imprisoned whalers at Point Barrow. In the spring 100 living fawns were added to the herd. Twenty-eight were sold, killed for food, or died, leaving, July 1, 400 head. During the past summer Charley and his two brothers (who were associated with him in the herding) died. The herd, by directions of Lieut. D. H. Jarvis, has been driven to the neighborhood of Cape Douglas, and Mary Antisarlook, the widow, will probably remove to the same locality.

Cape Prince of Wales.—On the 13th of December, 1899, Superintendent Gambell reached this station and turned over to Mr. Lopp, the missionary, 260 deer, completing the 749 deer that were due the mission and the Eskimo young men associated with it. These deer were in return for the 292 loaned the Government in the winter of 1897-98.

To the above were added last spring 237 living fawns, making a total of 986, of which 415 are females. Of the 986, 460 belong to the Eskimo. During the year 37 have died from disease and accident, and 30 males were butchered for meat.

There being an unusual number of prospectors in the country during the winter of 1899-1900, Mr. Lopp established a reindeer express between the mining camps at York and Nome. As far as the deer were concerned the line was a success; but there being an insufficient amount of patronage to make it profitable, the line was discontinued after two round trips.

This coming year Missionary Lopp is proposing to divide his herd, establishing a second in the vicinity of Shismaref Inlet, 60 miles north of Cape Prince of Wales.

Point Hope.—This herd belongs to Ahlook and Electoona (Eskimos), who had previously served five years apprenticeship at Teller Reindeer Station. They were assisted last season by Jacob Larsen Hatta, an expert Lapp. This summer he resigned and left the station. No report has been received of the condition of the herd. The middle of December, 1899, Mr. William Marshall, in charge of the Point Barrow herd, left with them 5 males, 30 females, and 13 fawn deer.

Point Barrow.—On the 2d of December, 1899, Mr. William Marshall, who had been selected to take charge of the reindeer to be driven from Point Barrow to the Teller Station, left with the Point Barrow mission herd 9 male, 62 female, 26 fawn, 1 steer, 3 sled deer, and 2 sick female reindeer; and with Chief Oyello 2 male, 16 female, and 7 fawn deer; making 128 in all.

During the spring 47 fawns were born at the mission, giving them 137 head. Twelve were born in Oyello's band, making his total 37 head.

During the winter the herd is kept at Sinragahroo, on the coast about 25 miles south of Cape Smyth, and in summer near Walakpat, 15 miles below the cape.

The following Eskimos are in charge of the herd: Shoud-la, Tok-put, Tsu-ka-wuna, Pauconeo, Powuna, Ungawishak, Otpello, and Ongakinya.

Gambell, St. Lawrence Island.—St. Lawrence, just south of Bering Straits,¹ is the largest island in Bering Sea, being approximately 100 miles long and 25 miles wide. From the commencement the project of stocking this island with domestic reindeer has steadily been kept in view, but until this present season it has not been convenient to do so. On July 27 the revenue cutter *Bear* reached Gambell at 2.40 p. m., having on board 29 head of deer.

Reaching the village during the height of the epidemic, when every family was nursing their sick and mourning their dead (36 had died out of a population of 300), I found that the people had lost all heart; that although in previous years they had importuned for deer, now no apprentices could be found to go into the herd and assist the Lapps in herding. Under this state of things, conferring with Captain Tuttle, R. C. S., we concluded that the wisest course was to take the reindeer to Teller Station, but this decision was reconsidered the next day when the progressive element of the population, who were absent from the village at the time, had returned. Learning that the deer were not to be left on the island, a public meeting was called, with the result that the next morning I was waited upon by a committee, who plead for the deer, promising to place their own sons with the herd as apprentices.

Consequently, on the afternoon of the 30th, the deer were landed in a bay on the east side of Northwest Cape, a few miles from the village. In September Captain Tuttle, R. C. S., upon his return from Point Barrow, called at Teller Station and took 45 deer from the Government herd, and after a stormy passage landed 42 on the island. Two were drowned in passing through the surf and one injured and killed en route, leaving a herd of 70. Mr. Nils Persen Sara, an expert Lapp

¹ The two Diomed Islands (Ratmanoff and Krusenstern) form three separate channels that are used by ships between Cape Prince of Wales, Alaska, and East Cape, Siberia; hence the word "straits" is the correct term.

(with his wife and two children), and Mr. Ole Krogh were given the oversight of the herd under Dr. J. H. Lerrigo, M. D.

St. James Episcopal Mission, Weare, Alaska. No report has been received of this herd. It numbered 92 in 1899.

Hoof disease.—This disease has been less fatal than usual this year, prevailing mainly in the herd at Teller Station. Dr. Francis H. Gambell, M. D., has during the year made it a special study, and with the information gained has practically eliminated the disease from the herd at Eaton Station. The herds at Cape Prince of Wales and Point Barrow have had no trouble with it.

Dogs.—The large number of Eskimo families that have died during the prevalence of the epidemic have freed from all ownership and control a large number of dogs. This has been particularly the case in the neighborhood of Teller Station, where half the native population died, and the herders were so weakened that they could not properly watch the herd. The dogs with no one to feed them had to forage for themselves. Accustomed in former days to hunt the caribou they naturally attacked the reindeer herd on every occasion, resulting in the shooting of many dogs.

Interference of white men.—The discovery of gold in the region of the reindeer herds has brought a large number of white men in the country. The large proportion of the newcomers have been intelligent, upright, and honorable men, who take an interest in the introduction of reindeer and are willing to give their influence to promote its success. But mingled with the better classes is a small number of the vicious, some of whom have openly boasted that they expected to live off the Government reindeer, and a few of whom have stolen and killed deer from the herd. A party being caught in the act at Cape Denbigh, Superintendent Gambell went to Nome and swore out a warrant for their arrest. At last accounts they had not yet been found. If a few transgressors could be punished for interfering with the reindeer it would probably save much future trouble.

In an act to define and punish crimes in the district of Alaska and to provide a code of criminal procedure for said district, approved March 3, 1899, the stealing of a reindeer is punishable by imprisonment in a penitentiary not less than one nor more than fifteen years (chap. 3, sec. 43).¹ The driving of a reindeer away from its pasturage without the consent of the owner is punishable by a fine of not less than \$50 nor more than \$400, and renders the offender also liable for damages to the owner (chap. 3, sec. 44).

¹ AN ACT to define and punish crimes in the district of Alaska and to provide a code of criminal procedure for said district. (Approved March 3, 1899.)

CHAP. 3, SEC. 43. That if any person shall commit the crime of larceny by stealing any horse, gelding, mare, colt, mule, ass, jenny, bull, steer, cow, calf, reindeer, such person, upon conviction thereof, shall be punished by imprisonment in the penitentiary not less than one nor more than fifteen years.

CHAP. 3, SEC. 44. That any person, not the owner or owners, who shall know-

The killing, wounding, disfiguring, poisoning, or injuring a reindeer is punishable by imprisonment in the penitentiary not less than six months nor more than three years, or by imprisonment in the county jail not less than three months nor more than one year, or by a fine not less than \$50 nor more than \$1,000 (chap. 3, sec. 55).

Moss burning.—During the last two summers, and especially during that of 1900, large areas of country have been set on fire by prospectors and miners. In some cases fires have been started from camp fires left burning when the campers have proceeded on their journey. In other cases fires have been started to clear mining claims of the surface moss, and allowed to spread indefinitely. In still others the country has been fired for the mere excitement of seeing it burn. But from whatever cause, thousands of acres of good reindeer pasturage have been ruined and made unproductive. When reindeer moss (*Cladonia rangiferina*) is once destroyed it takes many years to grow again. The Alaska Criminal Code, chapter 3, section 61, makes the starting of prairie fires an offense punishable by imprisonment of from three months to one year, or by a fine of from \$50 to \$500.²

ingly take or drive, without the consent of the owner or owners, or cause to be taken or driven, or shall assist in driving or taking away from the range or place where the same may be lawfully grazing, pasturing, or ranging, any horse, colt, mare, foal, mule, ass, jenny, or bull, cow, heifer, steer, calf, reindeer, sheep, hog, or any other description of domestic animal or animals from where the same may be lawfully grazing or in the habit of ranging, or where the same may have been herded or placed by the owner or owners thereof, for a distance of more than ten miles from such place where the same may have been so located or placed by the owner or owners thereof, or where the same may be in the habit of grazing or ranging, shall be fined in a sum not less than fifty dollars nor more than four hundred dollars, and shall be liable to the owner or owners of such animal or animals for all damages sustained by reason of such driving or taking away such domestic animal.

CHAP. 3, SEC. 55. That if any person shall maliciously or wantonly kill, wound, disfigure, or injure any animal the property of another, or shall willfully administer any poison to any such animal, or shall maliciously expose any poison with the intent that the same shall be taken by any such animal, or shall maliciously or wantonly, in any manner or by any means not otherwise particularly specified in this chapter, destroy or injure any personal property of another, such person, upon conviction thereof, shall be punished by imprisonment in the penitentiary not less than six months nor more than three years or by imprisonment in the county jail not less than three months nor more than one year, or by fine not less than fifty nor more than one thousand dollars.

² AN ACT to define and punish crimes in the district of Alaska and to provide a code of criminal procedure for said district. (Approved March 3, 1899.)

CHAP. 3, SEC. 61. That if any person shall maliciously or wantonly set on fire any prairie or other grounds other than his own or those of which he is in the lawful possession, or shall willfully or negligently permit or suffer the fire to pass from his own grounds or premises, to the injury of another, such person, upon conviction thereof, shall be punished by imprisonment in the county jail not less than three months nor more than one year, or by fine not less than fifty nor more than five hundred dollars.

REINDEER DISTRIBUTION.

Superintendent Gambell, taking 260 reindeer from the Eaton herd and 283 from the Golovin herd, on December 1, 1899, gave to Charley Antisarlook 286 head, and on the 13th of December gave to Missionary Lopp 257 head. (See pages 15, 17.)

Starting from the Eaton Station on the 5th of November, Per Mathisen Spein was placed in the lead with his driving deer, while the bell deer was fastened to his sled behind, to act as leader of the herd. Nils Klemetsen and Per Porsanger brought up the rear with their sleds loaded with provisions, tent, stove, etc. Upon reaching Norton Sound it was found that the ice was not sufficiently strong for crossing. This necessitated a long detour around the head of the bay. Thanksgiving Day was spent at Nome, as also was Christmas upon the return trip. At Christmas some sled deer were harnessed up and attached to their sleds, and took part in the Christmas festivities for the children. Eaton Station was reached upon the return on the 4th of January. The expedition was absent two months, and the distance traversed was about 720 miles.

It having been decided to return to Teller Reindeer Station, a portion of the herd that had been left at Point Barrow in 1898, the transfer was placed in the charge of Mr. William Marshall. He was assisted by Lars Larsen Hatta and Michel Bango, Lapps; also by Atpully and Wenyik, his wife; Onakinya and a Point Hope boy, Kayuga, Eskimos. At Point Hope the Lapp Bango refused to go farther, and his place was taken by Elektoona, an Eskimo, who had learned herding at the Teller Station.

Great difficulty was experienced in securing a sufficient number of sleds and fur clothing for the journey. When the time came for separating the portion of the herd to be left at Point Barrow from the portion that was to be driven south, the question arose of how to build a corral in which to separate the herd, there being no lumber or trees in the vicinity. They finally hit upon the unique experiment of building walls of ice. Slabs of ice 6 feet long, 3 feet wide, and 1 foot thick were sawn out. These were placed on end as close together as possible in a crescent shape and water thrown against the bottom of the slabs which immediately froze and cemented the slabs to the ground.

On the 2d of December 320 deer were separated from the herd in the corral, and driven 5 or 6 miles down the coast. The 125 remaining in the corral were then turned loose and driven northward to remain at the station. In the herd to be driven to the south were 83 fawns, which, becoming tired of the long journeys, greatly hindered the progress of the herd. As there were but 6 deer broken to sled work in the whole herd, and no time for breaking steers, the sled deer were overworked, which also delayed the journey. The next day in a blizzard their tent was all blown to pieces.

From the 9th to the 13th of November blizzards were encountered, which drove them into a neighboring fishing village, without tent or

provisions. The natives up and down the coast along the route taken by the reindeer were greatly interested in the herd, and many of them would follow from one village to another. On the way south 48 deer were left with Elektoona and Ahlook at Point Hope. During the trip 5 deer were killed for food, and 2 others died from accidents. Reaching Teller Reindeer Station January 20, 1900, 260 head of deer were given into the care of Dunnak for the Government.

Being without funds or barter goods, a number of bills were incurred while en route, to meet which I sent up barter goods on the cutter *Bear*, which were given out under the direction of Captain Tuttle, Revenue-Cutter Service, commanding.

St. Lawrence Island.—The purpose which has been had in mind for several years of stocking St. Lawrence Island with reindeer was realized this last summer by landing on the island 70 head of reindeer, with Nils Persen and Ole Krogh, expert herders, assisted by apprentices, in charge.

Teller Reindeer Station.—Of the 260 reindeer brought from Point Barrow by Mr. Marshall, 100 head were loaned to the mission of the Norwegian Evangelic Lutheran Church at that station.

Nulato, Yukon River.—The plans that had been formed for loaning a herd of deer to the Roman Catholics during the winter of 1899–1900, owing to a combination of circumstances, failed of realization. Another effort will be made during the winter of 1900–1901.

Bethel, Kuskokwim River.—Word was sent to Dr. J. H. Romig, superintendent of Moravian Missions in Alaska, that a herd of reindeer would be loaned their mission from the Eaton Station during the winter of 1900–1901. During August, selecting some suitable native men, Dr. Romig started overland for Eaton. On his journey his native assistants were taken sick with the prevailing epidemic, and returned home. It is expected that another effort will be made during the winter to secure their herd.

Purchase of reindeer in Siberia.—On the 19th of July, the cutter *Bear* having completed the taking of the census on Krusenstern Island, was headed for Asia after reindeer. At 7.40 p. m., anchoring off East Cape Siberia, communication was had with the shore. Failing to secure an interpreter at this point, at 10 p. m. we were again under way, picking our way through the ice floes. At 12.25 a. m. on the 20th we anchored off Whalen, where during the morning an interpreter was secured. Again getting under way, the *Bear* stood to the northwest along the Arctic coast of Siberia, calling during the afternoon at Inchowan, where a native was landed with instructions to have reindeer ready for the return of the *Bear*; at 7.55 in the evening the *Bear* made a stop at Tschutpan, where communication was also had with the deer men.

Again getting under way at 8.10 p. m., and working along shore through drift ice, at midnight we stopped and communicated with a small settlement of deer men. At 3.15 a. m. on the 21st we anchored

off Anurareem, again communicating with shore. At all these stations we found an epidemic of la grippe, and measles was raging. So many deer men were sick or had died that there were not a sufficient number of well men left to drive up the herds and catch deer for the ship.

Leaving Anurareem, open water was seen farther ahead, and the ship was worked through the ice until it reached an open lead. That afternoon we secured our first deer, 4 being obtained and brought on board; also some moss. Rounding Cape Serdze-Kamen, Siberia, at 10.45 p. m., we anchored off another village. Here we had better success, and during the day secured and brought on board 25 head of deer. Getting under way at 8.35 p. m., various villages were visited between Cape Serdze and Koliuchin Bay, but, owing to the prevailing sickness, without any success.

Deeming that it was useless to proceed farther along the Siberian coast, the ship was headed to the southeast on its return trip down the coast, calling at several villages that had been visited on the uptrip a few days before, but, so far as securing deer was concerned, without success. On the 24th of July a visit was made to St. Lawrence Bay, where the previous years we had been able to secure a number of deer, but this season none were to be had. Continuing south to Indian Point, on the 26th, and to Butankof Bay, Siberia, on the 27th, and failing to hear anything encouraging, we concluded to give up any further attempt this season to procure reindeer in Siberia, and steaming over to Gambell, St. Lawrence Island, the 29 head of deer that had been obtained were landed.

Number, distribution, and ownership of domestic reindeer in Alaska, 1900.

Point Barrow:

Presbyterian Mission	100	
Ojello (Eskimo)	37	
		137

Point Hope:

Electoon (Eskimo)	50	
Ahlook	50	
		100

Cape Prince of Wales:

American Missionary Association	536	
Eskimos	460	
		996

Teller Reindeer Station:

Government	221	
Norwegian Evangelical Lutheran Mission	100	
Tautook	75	
Sekeoglook	75	
Tatpan	64	
Dunnak	50	
Estate of Wocksock	75	
		660

Cape Douglas:

Mary Antisarlook	400	
Gambell, St. Lawrence Island:		
Presbyterian Mission	70	

Golovin Bay:

Swedish Evangelical Mission.....	147	
Episcopal Mission.....	69	
Okitkon.....	49	
Constantine.....	12	
Toptok.....	13	
		290

Eaton Reindeer Station:

Government.....	423	
Episcopal Mission.....	80	
Moses (Yukon native).....	65	
Martin Jacobsen (Eskimo).....	20	
		588

St. James Mission (Episcopal).....	92	
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Total.....	3,323	
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Of the total of 3,323, 644 are still in the possession of the Government, 1,184 belong to the 5 mission stations, and 1,495 to 20 Eskimo apprentices. From 1892 to 1900, 997 reindeer were purchased in Siberia, and from these 3,342 fawns have been born in Alaska.

In addition to the annual increase in numbers, it may also be said that the quality of the fawns born in Alaska greatly excels those born either in Lapland or Siberia. The reindeer born in Alaska are developing into larger and stronger animals than their parents.

Increase from 1892 to 1900.

	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.
Total from previous year.....		143	323	492	743	1,000	1,132	1,877	2,538
Fawns surviving.....		79	145	276	357	466	625	638	756
Purchased during summer.....	171	124	120	123			161	322	29
Imported from Lapland.....							144		
Total October 1.....	171	346	588	891	1,100	1,466	2,062	2,837	3,323
Loss.....	28	23	96	148	100	334	185	299	
Carried forward.....	143	323	492	743	1,000	1,132	1,877	2,538	

a One hundred and eighty deer killed at Point Barrow for food, 66 lost or killed en route.

Expenditure of reindeer fund, 1899-1900.

Amount appropriated.....	\$25,000.00	
Supplies for station.....	7,019.56	
Salaries of employees.....	5,778.71	
Cash expended in purchase of deer.....	3,795.00	
Barter goods for purchase of deer.....	2,341.72	
Freight.....	395.00	
Photographs for use in illustrating report.....	2.55	
Balance for outstanding liabilities.....	5,667.46	
Total.....	25,000.00	

Congressional appropriations for the introduction into Alaska of domestic reindeer from Siberia:

1894.....	\$6,000	1899.....	\$12,500
1895.....	7,500	1900.....	25,000
1896.....	7,500	1901.....	25,000
1897.....	12,000		
1898.....	12,500	Total.....	108,000

REINDEER MAIL SERVICE.

During the summer of 1899 the Second Assistant Postmaster-General gave to Mr. William A. Kjellmann, superintendent of reindeer in Alaska, as subcontractor, the carrying of the mail on route 78110. This route called for three round trips during the winter of 1899 and 1900 between St. Michael, Eaton, Golovin, and Kotzebue, the latter place being north of the Arctic Circle. Mr. Kjellmann, being required to return to the States on account of sickness, gave the work into the hands of Mr. David Johnsen Elliott. Mr. Elliott employed Johan Peter Johannesen, a Lapp, as mail carrier. The service was successfully performed with reindeer, each round trip being 1,240 miles through a wilderness without a road.

Early in the year the Post-Office Department concluded to give Nome a semimonthly service, and the contract was given Mr. William A. Kjellmann. Mr. Kjellmann being sick and in the States, instructions were sent to Dr. F. H. Gambell to take charge and see that the mail was sent through without delay. These instructions reached Eaton in February, 1900, and on the 1st of March the reindeer started from Eaton with the mail for Nome. Mr. S. Newman Sherzer was released from his duties as assistant superintendent at the station and appointed manager of the reindeer mail service to Nome. Five consecutive successful trips were made, four of them with reindeer and sleds. The five trips completed the winter contract. The round trips, a distance of 480 miles through a country without a road or trail, were made as follows: First trip, fourteen days; second trip, thirteen days; third trip, eleven and one-half days; fourth trip, eleven and one-half days, and fifth trip, fifteen days. The actual traveling time was from one to two days less than the foregoing figures, as a rest of twenty-four to thirty hours was taken at Nome and a shorter rest at Golovin each way.

As the instructions for carrying the mail came suddenly and unexpectedly, there was no opportunity for preparing the route for relays of reindeer, but the same deer made the round trip.

On the second trip the reindeer passed dog teams and a bicycle that had passed Eaton two days before the deer started; reached Nome, rested thirty hours, and started on the return trip before the dog teams arrived. The regularity with which the reindeer landed the mail on time at Nome last spring won the animal many friends.

At the request of Mr. N. V. Hendricks, subcontractor, on the route between Weare via Eaton to St. Michael, Superintendent Gambell furnished his mail carriers with reindeer, pack saddles, and sleds between St. Michael, Eaton, and Nulato, a distance of from 180 to 200 miles each way.

The above routes aggregated last winter between six and seven thousand miles that were successfully covered by the reindeer. The superintendent, in closing this part of his report says: "Our success

in carrying the mail was due to three conditions; first, the capability of the deer; second, the close attention given to the work by Mr. Sherzer; and third, the expertness of the driver, Nils Klemetsen."

During the latter part of February and the first part of March some freight was hauled by the reindeer from St. Michael to Norton Bay for G. L. Stanley & Co.

A contract has been made with Superintendent Gambell for carrying the mail with reindeer during the winter of 1900-1901 between Eaton and Kotzebue, a distance of approximately 250 miles. The contract calls for two round trips during the winter.

CANADIAN INTEREST.

A lawyer in Canada, who has followed the reindeer enterprise from its inception with much interest, under date of May 25, 1900, writes to the honorable the Secretary of the Interior:

Your work in Alaska, through Dr. Jackson, appears to be ideal in every respect. At three different points I have written Canadians to look carefully into his work, and find that it is as highly prized in the mining camps as among scientists.

Our coast line from 142 degrees to the mouth of the Nelson, some 3,000 miles, is without a single school, and I hope to do something for the poor Eskimo through schools and the reindeer.

INTRODUCTION OF REINDEER INTO THE "BLACK FOREST," GERMANY.

The following item, clipped from the public press, foreshadows an experiment in a new direction:

An interesting experiment in acclimatization is now being made by Herr Wendt, chief forester at Todtnau, Germany. At the zoological garden at Basel he procured a male reindeer and completed the family by buying at the Copenhagen market two females. The three animals were let loose in the Fahlberg region of the Schwarzwald, which reaches an altitude of 4,500 feet. As there is a large supply of reindeer moss in the higher regions of the Black Forest, above the altitude of 2,400 feet, the chief forester believes that reindeer will thrive on the Fahlberg as well as on the Kjolen of Norway. Zoologists are watching this experiment with much interest.

TELEGRAPH SERVICE.

Maj. Francis Greene, U. S. A., with a party of assistants, has commenced the construction of a military telegraph line from Nome and St. Michael, via Eaton and Nulato, to Eagle City, in the Upper Yukon Valley. At Eagle the line will connect with another to Valdez, on Prince William Sound, and also with a line via Dawson to Skagway. Between Nome and St. Michael a cable has been laid, and is in successful operation. Telegraphic communication with the reindeer stations will be of much assistance in regulating the work.

REVENUE-CUTTER SERVICE.

As in former years, I have received the hearty cooperation of Capt. Charles F. Shoemaker, chief of division of Revenue-Cutter Service,

Treasury Department. Every request for assistance, as far as possible, was granted. I desire, also, to acknowledge the assistance of Capt. Francis Tuttle, commander; Lieut. E. P. Bertholf, executive officer; and the other officers of the revenue cutter *Bear*.

Thanks are also due Gen. George M. Randall, U. S. A., commanding the Department of Alaska, and Capt. William M. Pinkston, quartermaster's agent, in command of the army transport *Lawton*, for transportation from Nome to Seattle, both for myself and a party of 25 Lapps.

The graphic illustrations of the report are from photographs taken by Surgeons Call and Hawley, Chief Engineer H. W. Spear, and First Assistant Engineer H. N. Wood, and Second Assistant Engineer A. C. Norman, of the Revenue-Cutter Service.

A number of photographs of Kamchatka that were received too late for last year's report are inserted in the present one.

ITINERARY.

Leaving Washington on the morning of April 23, the following day found me at Chicago. At Chicago an interview was had with Dr. Eugene S. Willard, whose son had recently been appointed to a position at the Eaton Reindeer Station. Business was also transacted at the office of the North American Trading and Transportation Company concerning supplies to Alaska reindeer stations.

Leaving Chicago in the evening, Seattle, Wash., was reached on the morning of the 29th. At this point I was met by Mr. Fredrick Willard and Mr. J. T. Lindseth, who are under appointment and en route to the Eaton Reindeer Station. I also met the Rev. T. L. Brevig and family, under appointment as Lutheran missionary at the Teller Reindeer Station. Mr. Brevig was made manager of the reindeer herds at Teller and teacher of the Government school.

On April 30 Mr. Ole Krogh, who had formerly been connected with the Eaton Reindeer Station, was employed to take charge of the reindeer that would during the summer be placed on St. Lawrence Island, Bering Sea. From April 30 to May 5 was a busy time arranging supplies for the various Alaska stations, the transportation of employees, and many other things demanded in providing for stations that were able to receive their supplies but once a year.

On the evening of May 5 I transferred my quarters from the hotel to the cabin of the revenue cutter *Bear*, Capt. Francis Tuttle commanding. The roster of the *Bear* is as follows: Capt. Francis Tuttle, commanding; First Lieut. Ellsworth P. Bertholf, executive officer; Second Lieut. Claude S. Cochran; Second Lieut. Aaron L. Gamble; Third Lieut. Philip H. Scott; Chief Engineer Herbert W. Spear; Second Assistant Engineer Albert C. Norman; Second Assistant Engineer Theo. G. Lewton; Surgeon Hawley, M. D.; Pilot J. W. Keene.

The following passengers were also received on board by permission

of the Secretary of the Treasury: Lieut. D. H. Jarvis, Messrs. W. W. and Ezra Parker, E. E. Ailes, H. R. Cowan, W. E. Hadley, D. H. Smith, Fred Zollander, J. F. Hawkins, W. E. Clarke, E. B. Leddy, and Charles Howard.

The steamer got under way at 1.50 p. m., Sunday, May 6, and ran down to Port Townsend, where we anchored at 6 p. m. At 4.30 p. m. on the 7th we were again under way, anchoring off Victoria, British Columbia, at 9.25 p. m. Leaving Victoria at 1.15 on the 8th, we reached Union Bay at 7.20 a. m. on the 9th, where the ship made fast to the wharf to take on its supply of coal.

During the coaling, trips were made by the officers and their guests to the Canadian Indian Reservation at Comox and other neighboring villages. Having received on board 550 tons of coal and 3,000 gallons of fresh water, at 8 p. m. on the 10th the ship cast off from the wharf, and, standing down Baynes Sound and rounding Yellow Island light, stood through Hornley Island Passage to the north. At 1.55 p. m. on the 11th the ship ran in and anchored at Alert Bay, when an opportunity was given to those who desired it to go ashore. The Indian village is the site of a cannery and also a mission of the Church of England. The Rev. A. J. Hall, who has for many years been in charge of this station, was absent on a visit to England, his assistant, Mr. A. W. Corker, and wife being in charge of the school during his absence. Mr. Hall has translated and secured the publication of the books of Matthew, Luke, and John, a book of common prayer, and a hymn book in the Qa Gütl language, the same being published in London. I visited the schoolroom, also the dormitories and workshops of the boys' home, also the home of the girls in a separate building.

In connection with the mission is a flourishing sawmill, which not only gives employment to the natives, but furnishes them with lumber at a moderate price for improved houses. Some of the parties secured photographs of the strange and uncouth totems, of which there were a number in the heathen portion of the native village. At 3.45 p. m. we were again under way. Our next call was on Sunday morning at Bella Bella, British Columbia, where the captain gave us an hour for the purpose of visiting the mission of the Canadian Methodist Church.

Dr. R. Large, M. D., and wife were off attending conference, leaving the station in charge of Miss Beatty. The mission is in the process of being transferred to a better location 2 miles north, where they will have more room for growing and also for gardens. Twenty-five new houses have already been erected on the new village site. The mission reports 88 members.

The attendance at the day school is quite irregular, as at most other native schools, where it is the habit of the parents to take their children with them when they go off hunting or fishing. At 7.45 we were

again under way. On the night of the 13th, encountering a severe storm, the ship ran into Red Bay, and at 10.05 anchored for the night. At 2 a. m. on the 14th we were again under way, and at 2.30 p. m. sighted Cape Edgecumbe and soon after sighted the entrance to Sitka Sound.

At 4 p. m. we steamed by Biorka Island and at 6.10 p. m. anchored at Sitka, in front of the Presbyterian mission. The next three days were spent in inspecting the two Government schools and also the large industrial school connected with the Presbyterian mission. A conference on school matters was had with Father Anthony, of the Russo-Greek Church, who has recently been appointed on the school committee at Sitka, and is one of the foremost priests of that church in Alaska. He has written a monograph on the schools of the church in Alaska. Public school No. 1 and the industrial school showed a gratifying progress, while public school No. 2 (native) has an efficient and skilled teacher, yet the irregular attendance greatly interferes with the progress that the pupils should make.

At Sitka three Eskimo women and one boy who had been brought to Sitka the preceding fall as witnesses in a murder case, and who at the close of the trial were unable to return to their homes, were now taken on board the *Bear* for their return. Col. L. P. Wright and W. L. McBride, deputy collectors of customs, were received on board on the 17th, and at 4.30 p. m. we got under way, passing out to sea by way of Cape Edgecumbe at 7.30 p. m. At 6.20 p. m. on the 20th of May we raised Trinity Islands in the north, and at 2.15 the next morning passed south of Chirikof Island, a former Russian penal colony, and on the morning of May 22 entered Delarof Harbor, anchoring at Unga at 5.40 a. m. Going ashore the school bell summoned the children to the schoolhouse, where a number of classes were heard. The recitations substantiated what we had already heard from the parents—that Mr. F. A. Golder is an excellent and painstaking teacher. The schoolhouse at this point needs repairs, which were ordered. At 10.40 a. m. we were again under way, reaching Unimak Pass at 6.30 a. m. on the 23d.

Steaming through the pass into Bering Sea, and skirting the north shores of Akun and Akutan islands, their mountain tops covered with snow, we reached Dutch Harbor in the midst of snow squalls at 3.15 p. m. During the week that was spent in securing coal and water for the ship and the boarding and inspection of the various vessels by the officers of the *Bear*, I was busy in going over the accounts of the builder of the new school building at Unalaska, and arranging for a greatly enlarged attendance at the school, the authorities of the Russian Greek Church having decided to send their pupils to the public school half a day in order that the children might have an opportunity of learning the English language. The Jessie Lee Home, which is a boarding school and orphanage at Unalaska, established and

maintained by the women of the Home Mission Society of the Methodist Episcopal Church of the United States, I found to be in its usual flourishing condition. Dr. and Mrs. A. W. Newhall and Miss Ella Darling are in charge.

During our stay at Dutch Harbor and Unalaska 20 vessels arrived loaded with passengers and freight for the mines at Nome City. The ship having watered and coaled, Messrs. J. C. Shaw, J. E. Haehin, and H. Johnston were received on board for passage to Nome, and at 6.50 p. m. on May 29 the *Bear* steamed to the north. The next day, June 1, we encountered alternate rain and snow, and at 2.30 p. m. commenced to encounter floating ice. At 9 p. m. the ice pack was so solid that the ship was compelled to turn and work its way back to clear water.

June 2, from 4 to 8 a. m., there was considerable loose ice. The ship skirted along the edge of Nunivak island until noon, when it became necessary to enter the ice field. At 10 p. m. we sighted the steamship *Dora* fast in the ice, and at 10.20 the *Bear* itself became fast in the ice pack, where we remained until the next morning. At 5.30 a. m., June 3, getting loose from the pack, the ship tried to find an open lead to the north, failing in which she turned and tried various courses to the southward. Passing near the steamship *Dora*, the *Bear* worked through the ice until she could pass a line to the *Dora*, and making fast, hauled her loose from the ice which bound her.

Steaming slowly ahead as far as possible, leads of slush-ice were found, and we reached and spoke the steamers *Senator* and *Portland*, both of which were fast in a small basin of open water surrounded with pack ice. With cheers from their passengers they attempted to follow in the wake of the *Bear*, but soon gave it up. The steamship *Dora* also got fast in the ice again, and was left behind. At 11.30 a. m. we sighted the steam schooner *Fulton*. At this time there were three schooners in sight, fast in the ice.

Turning again to the northward the *Bear* steamed through the ice, frequently coming to a dead stop, then backing out and putting on all steam would drive into the ice until a passage was forced through the more solid ice to the rotten ice again. This was kept up until 8.30 p. m., when unable to go farther, with an unbroken ice field as far as could be seen in front with marine glasses from the "crow's nest," the ship was tied up to the ice for the night. During the night new ice was formed in the open places and the old ice was greatly strengthened. At 5.10 a. m., casting loose from our icy wharf, and unable to make any impression on the ice ahead of us, we turned again to the south, working slowly through the ice.

At 1.30 p. m. the ship turned and worked to the eastward. As we passed in sight again of the steamships *Senator* and *Portland* their rigging was crowded with passengers watching the *Bear* force her way through the ice fields. One of the passengers whom I afterwards

saw at Nome said that it was the grandest sight he had ever seen, and worth the cost of the trip to witness. Again and again a thick fog shut down, adding greatly to the perplexities of navigation.

Toward midnight it seemed as if we would be again balked and compelled to try another way, but just then open leads were seen from the crow's nest, where an officer was constantly kept on watch, and by dint of hard pounding the intervening ice was broken through and soon after midnight open leads were reached. At 2.10 a. m., June 5, the ship was again in open water, and the three days' struggle in the ice pack was over. By 8 o'clock a. m. the ice had been left out of sight behind us.

At 4.20 p. m. Cape Nome was sighted, and at 7.30 p. m. the *Bear* anchored opposite the city. First Lieut. D. H. Jarvis and Mr. Johnston left the vessel for shore. Officers boarded the barks *Alaska*, *Mary Hume*, and *Cleveland*, and a number of calls were received from officials and others on shore.

June 6 opened with a southeast storm, causing a heavy surf on shore. At 9.30 a. m. signals of distress were observed on the bark *Alaska*. An officer was at once sent from the *Bear* to investigate. He found her bumping on the bottom of the sea in 16 feet of water, and wanting a steam tug to pull her into deeper water.

The steamer *Mary Hume* ran a line to her, but could not tow her out. Soon after she lost her rudder and became unmanageable. Cutting loose from the steamer, she hoisted her jib sail and ran on the beach. In the afternoon an officer and crew were sent from the *Bear*, and the officers and crew from the bark *Alaska* were brought to the *Bear*, only a guard being left on the stranded vessel.

The following morning, a lull occurring in the storm, the crew of the wrecked bark *Alaska* were sent ashore. Availing myself of the opportunity I also went ashore to secure if possible a meeting of the school board of Nome. The sea was still very rough, and in attempting to cross the bar at the mouth of the Snake River our boat grounded in the surf, and for a little while we were in great danger. Springing from the boat it was lifted over the bar and we finally reached the shore in safety. A meeting of the school board was secured and a committee appointed to select suitable sites for future school buildings.

The meeting of the school board continued so late that I was unable to return to the ship that evening, and during the night the storm increased in severity so that I was unable to return to the ship for three days. On the morning of June 8 the revenue cutter *Bear*, commencing to drag her anchors, got up steam and went to sea, and by evening there was not a single vessel left in the harbor. During the day the bark *Alaska* went to pieces, and her cargo was strewn along the beach for miles. In this cargo were the annual supplies for the mission stations of the Swedish Evangelical Union at Unalaklik and

Golovin Bay, and also for the Congregational mission at Cape Prince of Wales. During the morning of the 8th the school committee had a second meeting. Present: Walter Church, chairman; D. W. McKay, secretary; and Messrs. S. A. Keller, E. S. Ingraham, and J. V. Logan. The Rev. Mr. Robins, Congregational minister, was present by invitation.

On June 9, although it snowed hard all day, Judge Church and myself tramped over all sections of the city in search of a suitable place for a future school building. On June 10, the storm having abated and the cutter *Bear* having returned to its anchorage, I was able to return to my quarters on board the ship. During the evening the revenue cutter *Corwin*, having in tow the dismantled bark *Catherine Sudden*, which had been picked up as a derelict, having been abandoned by her officers and crew while in the ice, arrived in harbor.

June 11, went ashore to attend a meeting of the school board, at which a report was received from the subcommittee on the location of school sites recommending three locations in different parts of the city, after which I returned to the ship. On June 12 Messrs. C. E. Gay, Charles Find, and Dr. Contrise were received on board the *Bear*, and at 10 p. m. we steamed away for Port Clarence. At midnight, while en route, anchored off Synrock to deliver supplies to Charley Antisarlook. At 3 a. m., June 13, we were again under way. At 9.30 a. m. ice was encountered, passing through which we reached King Island at 10.40 a. m. Shetdama, an Eskimo woman, and her son, who were among those taken last fall, as witnesses in a murder trial, to Sitka, were now returned home. As the natives coming off to the ship in their kyaks recognized her on the deck, they called out the death of a daughter during her ten months' absence.

At noon we were again under way for Port Clarence. Upon rounding Point Spencer it was observed that the winter ice was still unbroken in the bay and extended some distance out to sea. Steaming up to the edge of the ice, some natives who were sealing came off with their unyak, and took with them from the boat Romuk and Pugumuk, the two Port Clarence Eskimo women, who had also been to Sitka as witnesses. At 7.30 p. m., loosing from the ice, the vessel steamed toward Cape Prince of Wales. At 7.45 p. m. the boat was stopped, and the captain picked up a boat load of Eskimos who wanted a tow.

At 11.30 p. m. the ship was forcing her way through heavy drift ice, and 2 a. m. on the 14th anchored off Cape Prince of Wales. Mr. Lopp, the Congregational minister, and some natives soon came aboard, and at once commenced landing supplies that had been brought for them. Mr. Lopp was notified that his annual supplies shipped on the bark *Alaska* had been lost. At 2.35 p. m. a heavy field of ice drifted down upon the *Bear*, and it was compelled to hoist its anchor and get under way. Getting free from the ice, the *Bear*

returned to its anchorage off the village at 6 p. m. The gale continuing through the night, no further landing of supplies was possible until the afternoon of the 15th, when all the supplies for that station were unloaded and taken on shore by the natives.

Having finished unloading, the *Bear* got under way at 11.10 p. m., and at 2.10 a. m. on June 16 anchored off the mining camp at York. Messrs. Hadley, Gay, Zollander, and Domingoes were landed and Messrs. William Marshall, Deputy United States Marshal McNally, and John Kerby were received on board. At 6.40 a. m. the ship was again under way. From 1 to 2 p. m. a heavy field of drift ice was encountered, and at 9 p. m. anchor was dropped at Nome.

At 8 a. m. on Sunday, June 17, word was brought to Captain Tuttle that the bark *Hunter* had been wrecked in the ice and 30 passengers were on the beach near Cape Romanzof with but four days' provisions. An officer was at once sent on shore to investigate the rumor. Finding the news of the wreck confirmed, steam was at once ordered, and at 1.10 p. m. the *Bear* was on the way to the scene of the disaster.

Much scattering ice was encountered during the day. At 3.20 p. m. on the 18th Cape Romanzof was sighted, and at 4.10 p. m. the wrecked vessel was seen. Approaching as near as was safe, the *Bear* came to anchor, and at 5.30 p. m. Lieutenants Bertholf and Scott, with crew of men, were sent off to the wreck in a sailing launch. Returning at 11 p. m., they reported that they had visited the *Hunter* and had found her stern stove in and her main deck badly broken up. They also visited the shore inside of the sand spit and learned from the natives that a steamer had taken the shipwrecked passengers away. At 11.45 p. m. the *Bear* started on her return to Nome. From 4 to 8 a. m. much loose ice was encountered, passing through which by 8.30 a. m. the ship skirted along the western edge of the ice field, on which large numbers of walrus were seen.

At 9.20 a. m. on the 20th the *Bear* reached its anchorage at Nome. Much of the time on the 19th and 20th was spent on shore. Word being received by the captain that the quarantine station at Egg Island, near St. Michael, needed assistance, the *Bear* got under way at 1.45 p. m. June 22. Deputy Collector Wright was received on board for a trip to St. Michael. At 3.05 a. m. a stop was made at the improvised quarantine station at Egg Island, where there had been some reported trouble among the passengers of the steamers *Ohio* and *Santa Anna*, which, arriving at Nome with smallpox on board, were sent into quarantine.

At 4.10 a. m., the officer and boat returning from the quarantine station, the *Bear* got under way for St. Michael, where anchor was dropped at 5.30 a. m. Going ashore with the captain, I procured mail for the officers and crew of the *Bear*, for the missionaries at Unalaklik, and for the employees at the Eaton Reindeer Station. At 7.35 a. m. we were again under way, and at 1 p. m. dropped anchor abreast of Unalaklik.

I was at once sent ashore, accompanied by an officer, in the second cutter. Finding Dr. F. H. Gambell, superintendent of Eaton Reindeer Station, at Unalaklik, I was able to arrange for going to the station, 8 miles up the Unalaklik River. As it was important that I should have an interpreter in the settlement of the annual accounts with the Lapp employees, the Rev. Julius Qvist, Swedish missionary, was invited to accompany us.

On Sunday, the 24th, divine services were held with the Lapps and employees at the reindeer station, and, rising early on the 25th, a long day was employed in settling accounts, paying annual salaries, and inspecting work. This having been accomplished satisfactorily, in the evening we returned to the Swedish mission at Unalaklik, bringing with us Johan I. Tornensis and wife, whom I wished to transfer to the charge of the herd at Teller Reindeer Station.

At 1.30 a. m., June 26, a boat arriving from the ship for me, I rose and went aboard, reaching it at 3.40 a. m. It was some time, however, before the trade goods with the Lapp family arrived. At 10.30 a. m., everything being on board, the *Bear* got under way for Nome, where it anchored at 9.55 a. m. on the 27th. On June 28 the Rev. T. L. Brevig, Lutheran missionary to the Teller Reindeer Station, with wife, two children, and a servant girl, also an Eskimo boy who wished to visit his brother at Port Clarence, and the Rev. J. Kirk, of Eagle, were received on board. The sea was very rough returning from the shore to the ship. At 10.55 p. m. the *Bear* got under way for Port Clarence.

June 29 the ship steamed all day through a dense fog. In the evening, the water shoaling up to 5 fathoms, the captain anchored at 8.05 p. m. When at 6.05 a. m. June 30 the fog lifted, it was found that the ship had passed through the straits and up the whole length of Port Clarence Bay in the fog of the evening before without knowing it, and we were now near the mouth of Grantly Harbor. The vessel was got under way and thirty minutes later anchored in front of Teller Reindeer Station. Work was at once commenced landing Mr. Brevig and family, also Mr. and Mrs. Tornensis. Finishing the landing of the supplies at the station, the *Bear*, at 2.30 p. m., started for Point Spencer, reaching the point and anchoring off the sand spit at 5.10 p. m., when an officer boarded the whaler *Beluga*.

At 6.15 we were again under way, and at 10.35 p. m. anchored off the new mining town of York. The following day, July 1, the citizens, learning that there were two ministers on board, improvised a religious service, which was held in an unfinished store building, both ends of the building being open to the weather. This is probably the first religious service held in that camp.

Hearing that there was an epidemic of measles at Cape Prince of Wales, and that the servants and children of Mr. Lopp were sick, the captain concluded to steam up to the Cape and offer the services of his surgeon. Consequently, at 5.30 p. m. we were under way, anchor-

ing off Cape Prince of Wales Village at 7.25 p. m. Dr. Hawley was immediately sent ashore. Upon his return he reported that five of the natives had died, and that all the five children of Mr. Lopp had been sick, but were recovering, and that many of the natives were still very ill.

At 9.30 p. m. July 1 the *Bear* got under way for King Island, which was reached at 8 o'clock on the morning of the 2d. Dr. Hawley was at once sent ashore to take the census of the native village, and was accompanied by several officers who wished to get a closer view of the houses of the cave dwellers, take photographs, etc. All having returned at 12.25 p. m., the *Bear* again got under way, reaching Synrock at 8.45 p. m. the same evening. At this place an officer and boat's crew were sent ashore to examine the feasibility of floating a sloop that had been blown on the beach during the recent storm. In due time they returned with the report that the water was so shallow that no help could be afforded.

The remainder of the supplies on board for Charley Antisarlook were landed, and at 10.35 p. m. the ship was again under way, reaching Nome at 2.45 a. m., July 3. July 4 was observed at Nome with a small procession and a large crowd at the opera house to listen to the reading of the Declaration of Independence and the making of addresses by distinguished men. July 6 another storm swept the sea and broke the steam launch *Islam* from its moorings and stranded several small vessels.

At 2.30 p. m. Kayuia, one of the St. Lawrence boys that had been rescued from the bark *Alaska* at the time it went ashore, died of pneumonia. At 2.55 p. m. the ship got under way for Sledge Island, where, at 3.50 p. m., an officer and men, accompanied by the several Eskimos on board the ship, were sent ashore with the body. The Eskimos had tied up the body in sail cloth, native fashion. It was carried up the side of the mountain and then left on the ground, which is the usual method of the Eskimo of this region of disposing of their dead. At 4.30 p. m. we were again under way, and at 9.50 anchored off Nome.

There having been some disturbance at the mining camp at Top Cock, the *Bear* got under way at 4.15 p. m., July 10, and at midnight anchored at Top Cock. An officer was sent ashore to communicate with Captain Walker, U. S. A. At 1.20 a. m. the officer returned, reporting that Captain Walker was in Bluff City, a few miles farther along. Half an hour later the *Bear* stopped at Bluff City, and the officer was again sent ashore, returning with the report of Captain Walker that the situation was at present quiet. The cutter at 2.55 a. m. got under way for Golovin Bay, which was reached at 7.40 a. m. Mail was delivered to the Coast Survey steamer *Patterson*, and after breakfast the captain, myself, and others went to the village, where I had a conference with the Swede missionaries, and arranged to loan

Okitkon a herd of reindeer this present winter. About 2 p. m. we returned to the ship, and at 6.10 p. m. were under way on our return to Nome, calling again at Bluff City at 10.10 p. m.

At 6.15 a. m., July 12, the *Bear* anchored off Nome. On the 12th and 13th negotiations were entered into with Mr. Nils Klemetsen for him to take charge of the herd of reindeer to be placed on St. Lawrence Island. He changing his mind and declining to go, arrangements were made with Mr. A. A. Bahr. During the afternoon the household belongings of a leading native of Port Clarence, who had recently died, were brought on board the *Bear* to be conveyed to his relatives; also a sick man and woman, together with an orphan child. The following day the sick man, being found to be the interpreter of the Swedish mission at Golovin Bay, and having means of his own, was transferred from the ship to the St. Bernard Hospital, where he afterwards died.

On Sunday, the 15th, preached in the Presbyterian chapel tent at Nome. The surf was so high that it was with difficulty that the captain was able to launch his boat and return in the evening to the ship, the boat filling with water as we passed through the surf. Changing our wet garments, at 5.30 p. m. the *Bear* got under way for Port Clarence. Word having been received during the day that Charley Antisarlook was sick, at 11.15 p. m. the *Bear* stopped opposite Synrock, and Surgeon Hawley was sent ashore to prescribe for the sick man. Upon his return, getting under way at 11.40 a. m., July 16, the *Bear* anchored off the sand spit at Point Spencer, where the native child, the sick woman, and the dead man's household goods were landed among the relatives.

The landing having been accomplished, at 3.30 p. m. the *Bear* proceeded up the bay to Teller Reindeer Station, which was reached at 5 o'clock. The United States army transport *Seward* was also anchored there. Going ashore and procuring some reindeer trade goods needed for barter on the Siberian shore, I returned to the ship, and at 9.35 p. m. we were under way across the bay to Port Clarence City, where the captain, at 11.15 p. m., sent an officer ashore with a letter to the deputy marshal, requesting him to warn all miners and others not to interfere with the reindeer that were in that vicinity, reports having been received of threats against the herd. The officer returning, reported that but 30 people were left in the city, and that the deputy marshal was gone. At midnight we got under way again, and proceeded to the sand spit, where we anchored at 2 a. m. on the 17th.

A storm prevailing on the outside, the *Bear* lay all day at anchor. The gale having somewhat abated, the *Bear* got under way at 10.20 p. m. and anchored opposite Cape Prince of Wales at 7.15 a. m. on the 18th. Accompanying Surgeon Hawley ashore, I had a further opportunity of arranging school matters for the coming winter at the

Cape. Returning aboard at 3.05 p. m., the ship steamed for the Diomed Islands, where at noon on the 19th Dr. Hawley, a number of the officers, and myself went ashore on Krusenstern Island, Surgeon Hawley being detailed to take the census of that island and also visit the sick. Returning to the ship at 3.10 p. m., we got under way, anchoring off East Cape, Siberia, at 7.40 p. m.

Several boat loads of natives visited the ship, after which we started at 10 p. m., working through the loose ice, passed through the straits, rounded East Cape, and at 12.25 a. m. on the 20th anchored off the Siberian village of Whalen. Securing a native boat and an interpreter at this point, at 2.40 p. m. we were under way, skirting the Arctic coast of Siberia in search of reindeer. At 4.45 p. m. stopped off Inchowen and landed a native. Again under way at 5.10 p. m. We next called at Tschutpan, in a field of scattered ice. Resuming the voyage at 8.10 p. m., the ship worked slowly through the drift ice for Cape Serdze until 11.35 p. m., when the course was changed inshore, stopping at 12.25 a. m. on the 21st to communicate with some deer men whose houses were seen on the beach.

At 2.15 a. m. resumed the journey, calling at Anurarine at 3.15 a. m., and communicating with the deer men of the vicinity. At 5 a. m. under way to clear water. In the afternoon took on board 4 deer and some sacks of moss. Hoisting anchor at 7.25 p. m., the steamer worked its way through heavy drift ice around Cape Serdze, and at 10.25 p. m. anchored opposite a Tchuchee village west of the Cape.

During the 22d 25 additional deer were taken on board, also a number of sacks of moss. Getting under way at 8.35 p. m., the *Bear* went west, calling at various settlements, to Koliuchin Bay, in the effort to secure more deer. Failing to secure an additional load, the *Bear* turned eastward on its course, working through a number of fields of drift ice, calling at a number of stations, and finally reaching St. Lawrence Bay, Siberia, where it anchored at 3.05 a. m. on the morning of July 24.

At all the villages at which we called the prevailing epidemic was experienced, and in a number of them there were not a sufficient number of deer men that were not sick to drive the herds to the coast and catch the deer for the ship. Two days were spent in St. Lawrence Bay visiting the homes of the deer men and taking a fresh supply of water. Here, as elsewhere, the people were all sick and no deer could be procured.

Leaving St. Lawrence Bay at 9.10 a. m. July 26, the ship anchored at Indian Point, Siberia, on the same evening at 11.15 o'clock, where communication was had with shore. At this point it was reported that one-half of the population had died. Hearing of some herds to the southwest, at 3.15 a. m. on the 27th the *Bear* got under way for Butankof Bay, where we anchored at 5.30 a. m. Boats were sent

ashore and a conference was had with the deer men, but the herds were found to be some miles in the interior, and the herders were sick and were unwilling to drive them down to the coast.

Giving up any further attempts to secure reindeer, at 9.25 a. m. the ship hoisted anchor and steamed away for St. Lawrence Island, reaching the settlements at Gambell at 2.45 p. m. It had been in the plans of the Department for two or three years to stock this large and important island with a herd of reindeer, but it had not been convenient to do so until the present season.

Reaching the village, we met an unexpected difficulty. The people were so discouraged by the large number of deaths that they had lost all hope and ambition, and did not care whether they secured the reindeer or not, although on several preceding seasons when we visited them they had been begging and urging that deer should be placed upon their island. The temporary discouragement was so great that none could be found who were willing to become herders. Under the circumstances, nothing could be done but abandon the project at present of placing deer upon the island and return the deer to Teller Reindeer Station.

During the night, however, some of the younger men of the village who had been off hunting returned, and finding that I had decided to take the deer away, they called a meeting of the more progressive men of the village and came to me with their earnest remonstrances against not landing the deer. Informing them that it was a question of finding a number of young men who were willing to become apprentices and learn to manage deer, they at once offered their own sons. Consequently, on the afternoon of the 30th, 29 reindeer were landed on the island to the eastward of the village.

During our stay at Gambell Captain Tuttle kindly sent two carpenters ashore to enlarge the school building, which had become too small for the community. An addition 20 feet square was added to it. A frame was erected and inclosed during the three days' stay of the steamer. At 9.35 o'clock on the evening of the 30th we returned to Indian Point, Siberia, which we reached at 4.40 a. m. on the 31st.

At this point a Siberian by the name of Jack, who had been the source of much drunkenness and rioting at St. Lawrence Island, even threatening the lives of the Government teachers, was landed with his family. Getting under way at 8.45 a. m., Kings Island was reached at midnight and Teller Reindeer Station at 7.15 a. m. August 1. After a short stay of three hours, Point Spencer was reached at noon.

Leaving there at 12.45 p. m., we passed Stewart Island at 10.40 p. m. on the 2d, and reached St. Michael at 4.30 a. m. on the 3d. Spending the day at St. Michael, at 10.50 p. m. the *Bear* steamed for Unalaklik, which we reached at 2 o'clock a. m. the 15th. Leaving me at Unalaklik, the *Bear* returned to St. Michael. From Unalaklik I went

up the river to Teller station, where final arrangements were completed for the starting of 11 Laplanders with their families for a return to Norway.

Loading themselves and baggage in rowboats, on the evening of the 6th we returned to the mouth of the river at Unalaklik, and early on the morning of the 7th, the *Bear* having returned from St. Michael, the Laplanders and their baggage were on board the ship. Hoisting anchor at 10.20 p. m., we started for Nome, reaching the mouth of Nome River at 1.50 p. m. on the 8th. Here the Laplanders were transferred from the *Bear* to the U. S. army transport *Lawton*, after which the *Bear* proceeded to Nome City, dropping anchor at 3.25 p. m. On the evening of August 10, the *Bear* having concluded its preparations for its trip to Point Barrow, the captain very kindly transferred me to the U. S. transport *Lawton*, Capt. William S. Pinkston, quartermaster's agent, in command, and Capt. F. Magune, sailing master. On Sunday morning several officers, passengers, and myself went ashore for divine service, at the close of which we found that the sea was too rough to return to the ship. On the morning of the 13th, the surf being still high, Governor John G. Brady and I went down to the military camp at the mouth of Nome River, hoping to be able to reach the ship from there; but in this we were disappointed.

During the delay we were kindly entertained by Major Van Orsdale, U. S. A., and his estimable wife. On the morning of the 14th, the surf having somewhat abated, we were taken off, with many others, to the transport *Lawton* in a lighter. In addition to several Government officials who were returning to the States, and members of the families of the officers at military posts in Alaska, 146 stranded miners were taken into the steerage for transportation to Seattle.

All parties being on board, soon after noon the steamer started for Unalaska, reaching there, after a stormy and foggy trip, the 18th. While in Unalaska the Government school and the Methodist Mission Orphanage were both visited. At 4.30 p. m. of the 21st, bidding adieu to the friends at Unalaska and Dutch Harbor, the *Lawton* steamed out of the harbor past Priests Rock and started southward for Seattle, where we arrived, after an uneventful trip, on the 28th.

Immediately upon my arrival I had a conference with Mr. A. Chilberg, deputy Norwegian consul, arranging for the transportation of the Laplanders to their native country. This also consumed the whole of August 29. We took the train over the Northern Pacific Railroad at 7.25 a. m. on the morning of the 30th. The Lapps had a tourist sleeping car to themselves, which added greatly to their comfort; but the warm weather, to which they were unaccustomed, caused much suffering and greatly affected the five babes that were in the party. Duluth was reached at 8 a. m. on September 2. As we had to spend the day in that place, I took the opportunity of calling in a physician, who ministered to the sick babes. Leaving Duluth at 7 o'clock p. m.

that evening over the Duluth, South Shore and Atlantic Railway, Sault St. Marie was reached at 10.40 a. m. September 3, and Montreal at 8 a. m. September 4. At Montreal arrangements were made with the Allan Steamship Company to take charge of the Lapps, not only across the ocean to Liverpool, but across England to Hull, from Hull to Bergen, Norway, and from Bergen by steamer up the coast to Lapland. The extreme heat still affecting the children, the services of a physician were again needed.

Having done all that I could to promote the comfort and interest of the Lapps, in the evening I took the train for New York City, reaching there early on the morning of the 5th, and at noon left for Washington. On the day following my arrival in Washington the salaries for the Lapps returning to Norway was secured and arrangements made, through the courtesy of the honorable Secretary of State, by which the moneys due the Lapps could be paid them upon their arrival at Liverpool, through the United States consul at that port.

Having completed these arrangements, I returned to New York on the 7th to make sure that the money should be sent by the Saturday steamer, thereby reaching Liverpool in advance of the Lapps. Returning to Washington September 8, the long summer's travel of 16,587 miles was ended.

ILLUSTRATIONS
FOR
REINDEER REPORT, 1900.

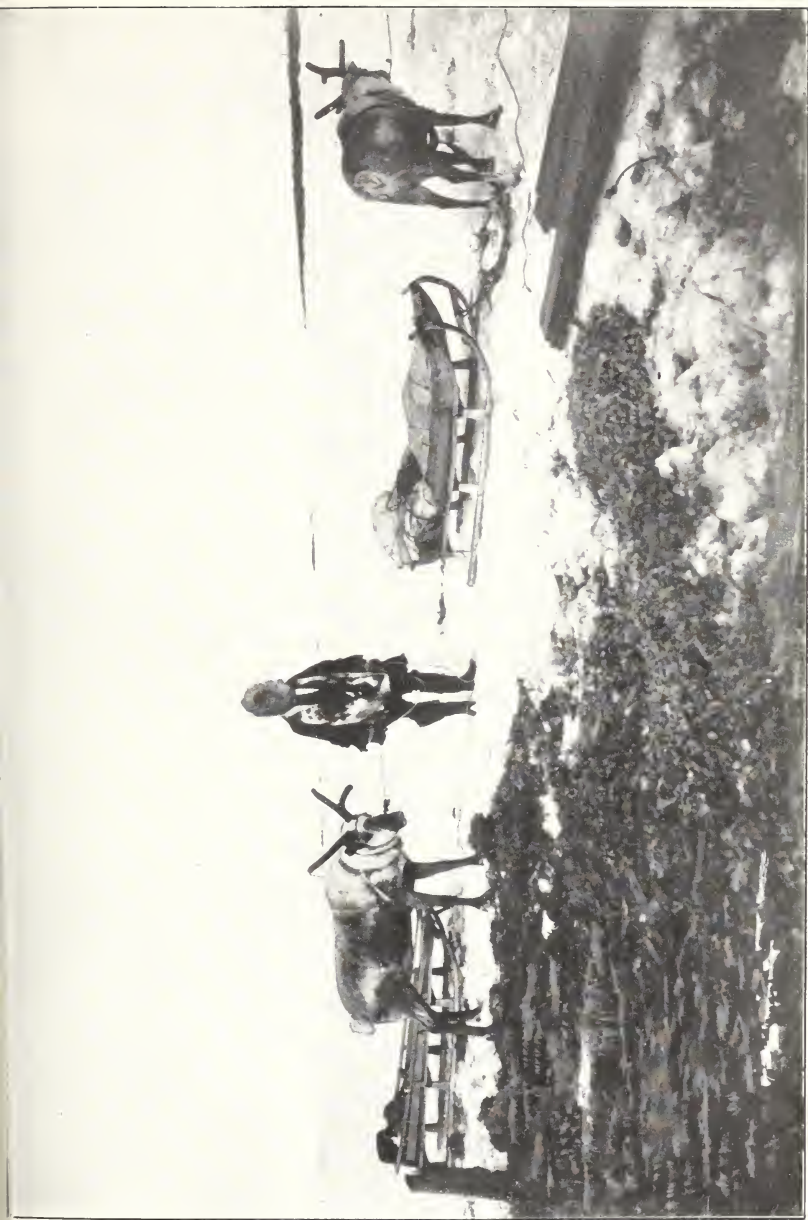


Headquarters.

Warehouse.

EATON REINDEER STATION, ALASKA.

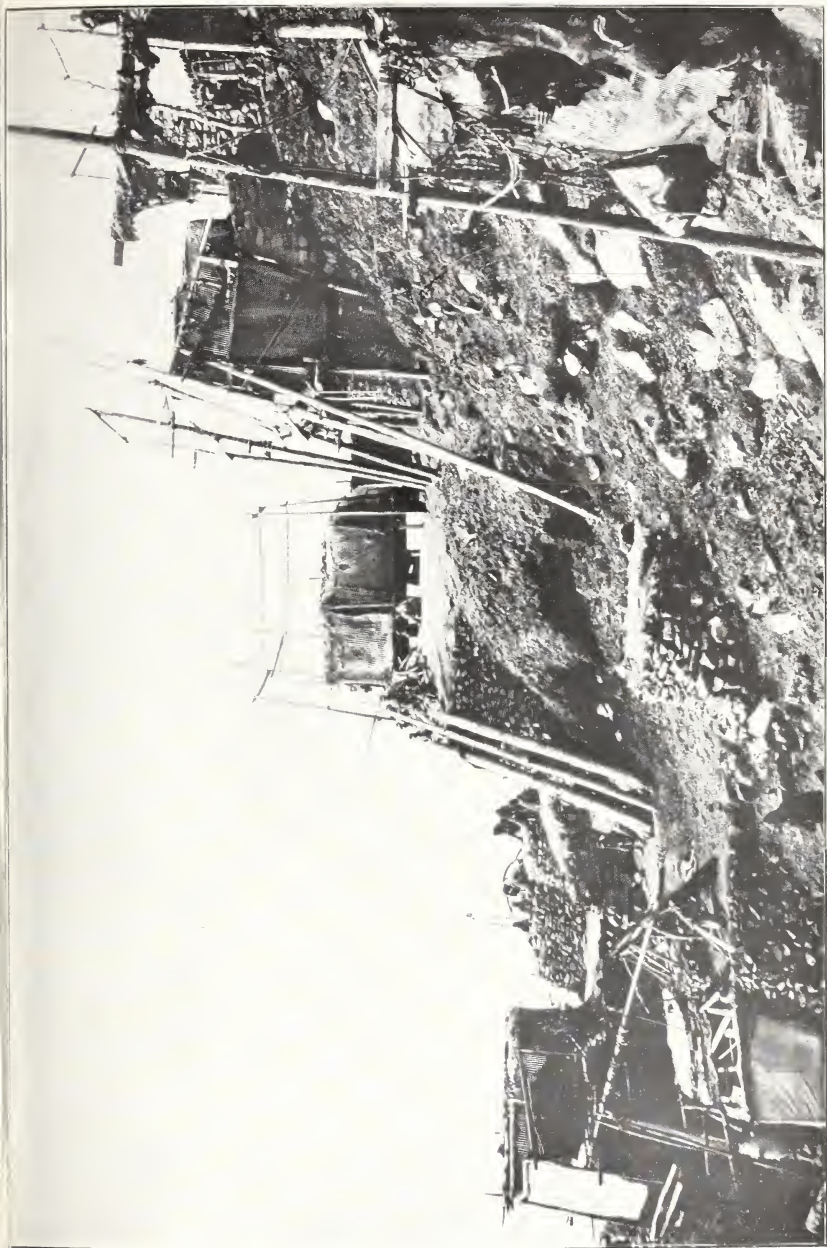
Photo by Assistant Engineer A. C. Norman, R. C. S. Page 12.



NILS KLEMETSEN STARTING FROM EATON, ALASKA, WITH THE REINDEER MAIL FOR NOME, MARCH 1, 1900.

NATIVES AT SEA, KING ISLAND, ALASKA.
Photo by Assistant Engineer A. C. Norman, R. C. S. Page 31.





A SECTION OF KING ISLAND, ALASKA.

Photo by Assistant Engineer A. C. Norman, R. C. S. Page 34.



VILLAGE OF CAVE DWELLERS, KING ISLAND, ALASKA.

Photo by Assistant Engineer A. C. Norman, R. C. S. Page 34.



GROUP OF NATIVES, LITTLE DIOMEDE ISLAND, ALASKA.
Photo by Assistant Engineer A. C. Norman, R. C. S. Page 36.



WILLIAM MARSHALL AND TWO LAPLANDERS.
Photo by Chief Engineer H. W. Spear. Pages 17, 131.



PUBLIC SCHOOL, POINT BARROW (THE MOST NORTHERN SCHOOL IN AMERICA).

Photo by H. R. Marsh, M. D.

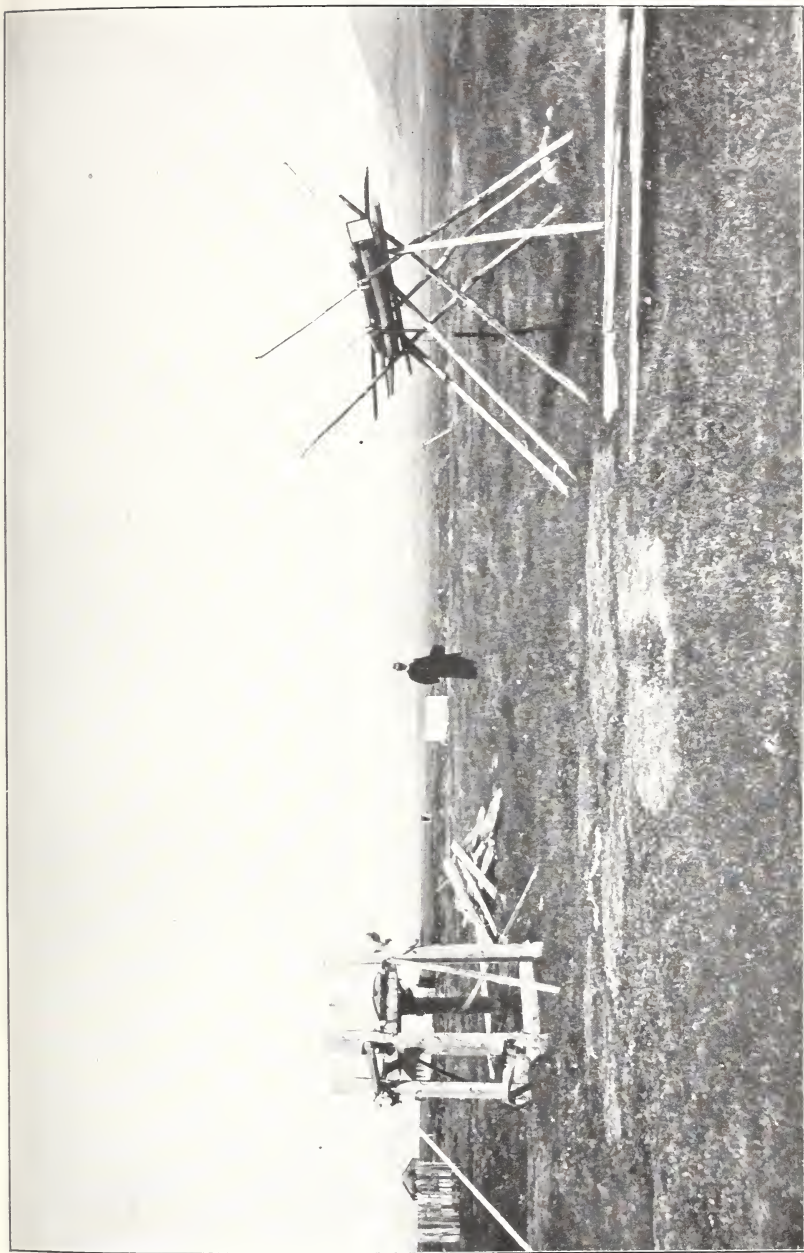


CUTTER BEAR FAST IN THE ICE OFF POINT BARROW, AUGUST 3-14, 1898. GETTING ON DECK CANS OF POWDER PREPARATORY TO BLASTING A CHANNEL THROUGH THE ICE.

Photo by First Assistant Engineer H. N. Wood, R. C. S. (Reindeer Report, 1898, p. 31.)

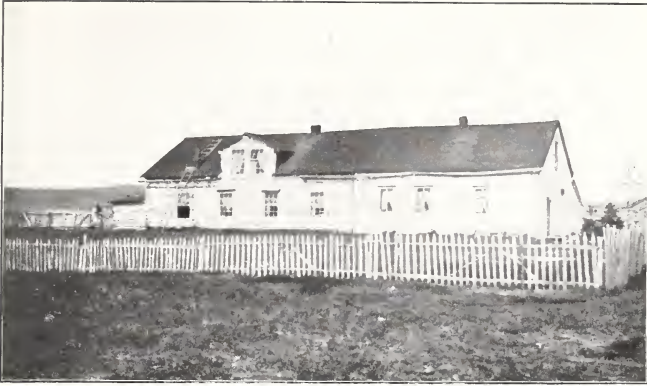


A SCENE IN THE GRAVEYARD, ST. LAWRENCE ISLAND, ALASKA.
Photo by Assistant Engineer A. C. Norman, R. C. S. Pages 10, 37.



THE GRAVEYARD, TELLER REINDEER STATION.

Photo by Assistant Engineer A. C. Norman, R. C. S. Page 10.



RESIDENCE OF SWEDISH EVANGELICAL UNION MISSIONARIES, UNALAKLIK,
ALASKA.

Photo by R. N. Hawley, M. D. Page 33.



CHURCH AND SCHOOLHOUSE, SWEDISH EVANGELICAL UNION MISSION, GOLOFNIN,
ALASKA.

Photo by R. N. Hawley, M. D. Page 34.



RESIDENCE OF REV. W. T. LOPP, CONGREGATIONAL MISSIONARY, CAPE PRINCE OF WALES, ALASKA.

Photo by R. N. Hawley, M. D. Page 33.



RESIDENCE OF SWEDISH EVANGELICAL UNION MISSIONARIES, GOLOFNIN, ALASKA.

Photo by R. N. Hawley, M. D. Page 34.



REINDEER ON THE SIBERIAN BEACH WAITING TO BE LOADED ON THE BEAR FOR
TRANSPORTATION TO ALASKA.

Photo by R. N. Hawley, M. D. Page 36.



A BIT OF THE GRAVEYARD AT ST. LAWRENCE ISLAND, WHERE THE DEAD, WITH
THEIR PERSONAL BELONGINGS, ARE LEFT AMONG THE ROCKS.

Photo by R. N. Hawley, M. D. Page 101.



CARRYING REINDEER FROM HERD TO BOAT, BARONESS KORFG BAY, KAMCHATKA.

Photo by Chief Engineer H. W. Spear, R. C. S. (Reindeer Report, 1899, p. 36.)

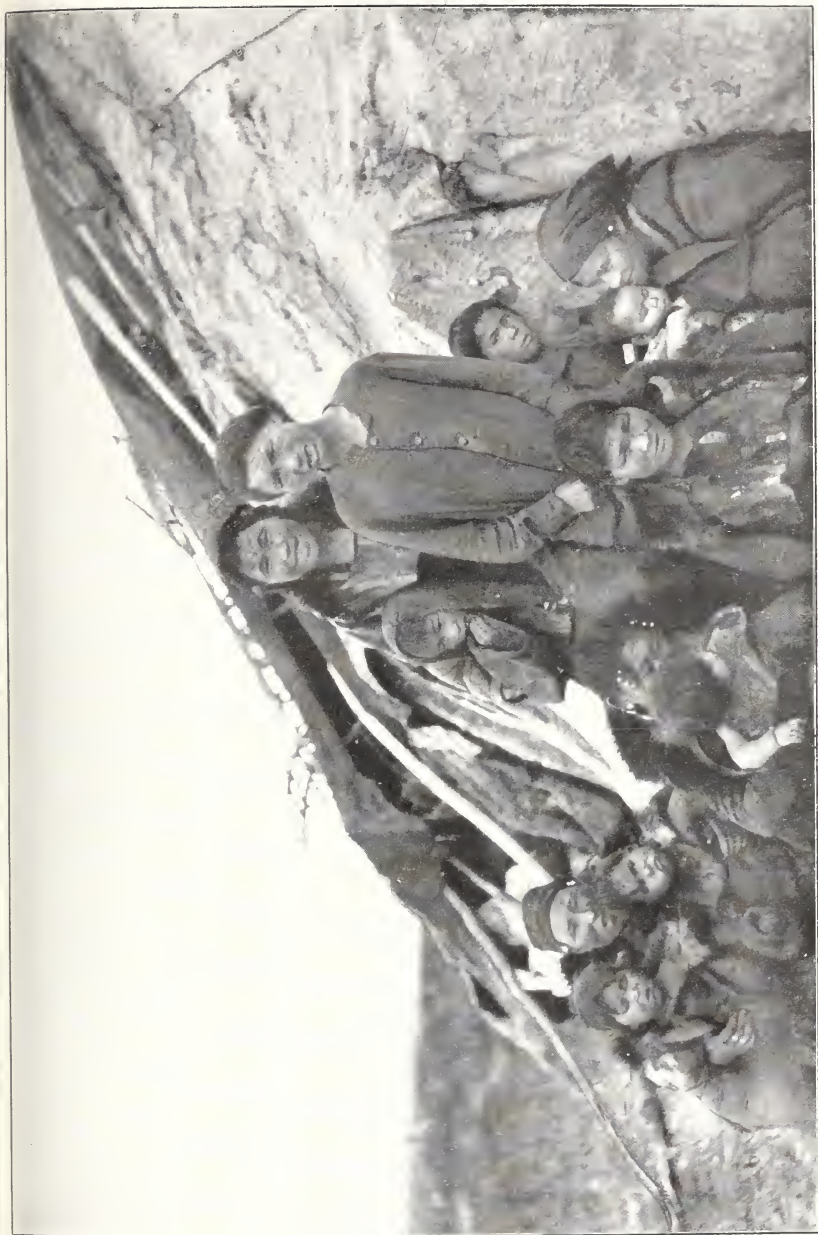


CATAMARAN DUGOUT, BARONESS KORFG BAY, KAMCHATKA.

Photo by Chief Engineer H. W. Spear, R. C. S. (Reindeer Report, 1899, p. 35.)



INSIDE OF A DEER MAN'S TENT AT BARONESS KORFG BAY, KAMCHATKA.
Photo by Chief Engineer H. W. Spear, R. C. S. (Reindeer Report, 1899, p. 35.)



GROUP OUTSIDE OF DEER MAN'S TENT, BARONESS KORFG BAY, KAMCHATKA.

Photo by Chief Engineer H. W. Spear, R. C. S. (Reindeer Report, 1899, p. 35.)



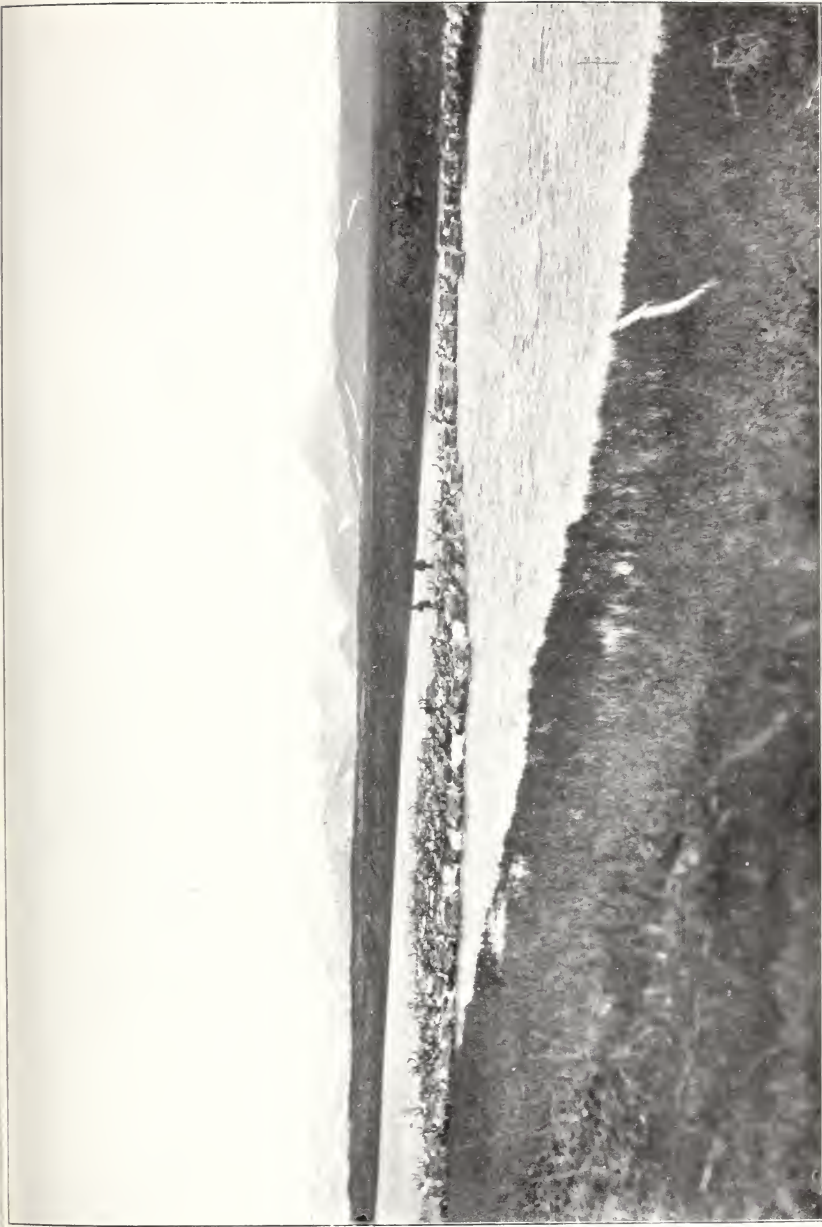
NATIVE STOREHOUSES AND ROWS OF DRYING FISH, BARONESS KORFG BAY, KAMCHATKA.

Photo by Chief Engineer H. W. Spear, R. C. S. (Reindeer Report, 1899, p. 35.)



A NATIVE STOREHOUSE WITH ROWS OF DRIED FISH, BARONESS KORFG BAY, KAMCHATKA.

Photo by S. J. Gall, M. D. (Reindeer Report, 1899, p. 35.)



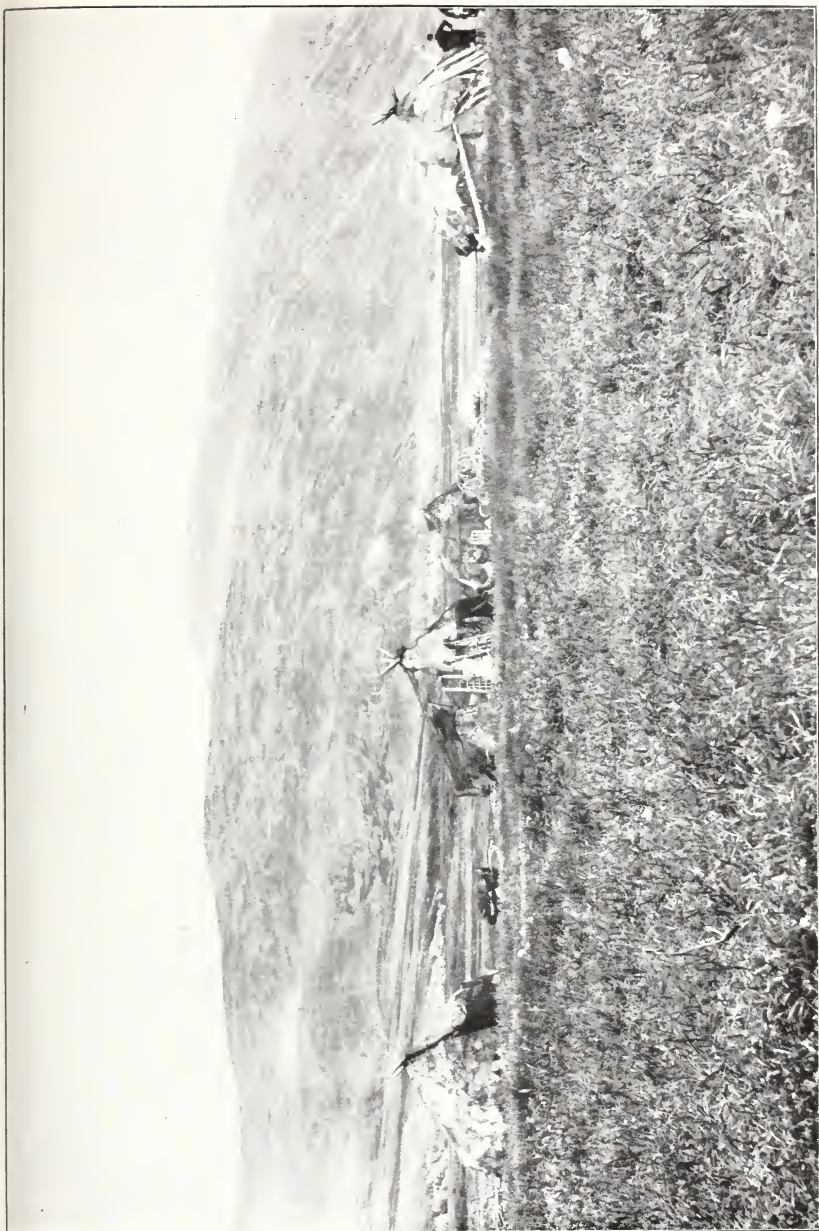
HERD OF REINDEER CROSSING A RIVER, BARONESS KORFG BAY, KAMCHATKA, 1899.

Photo by Chief Engineer H. W. Spear, R. C. S.



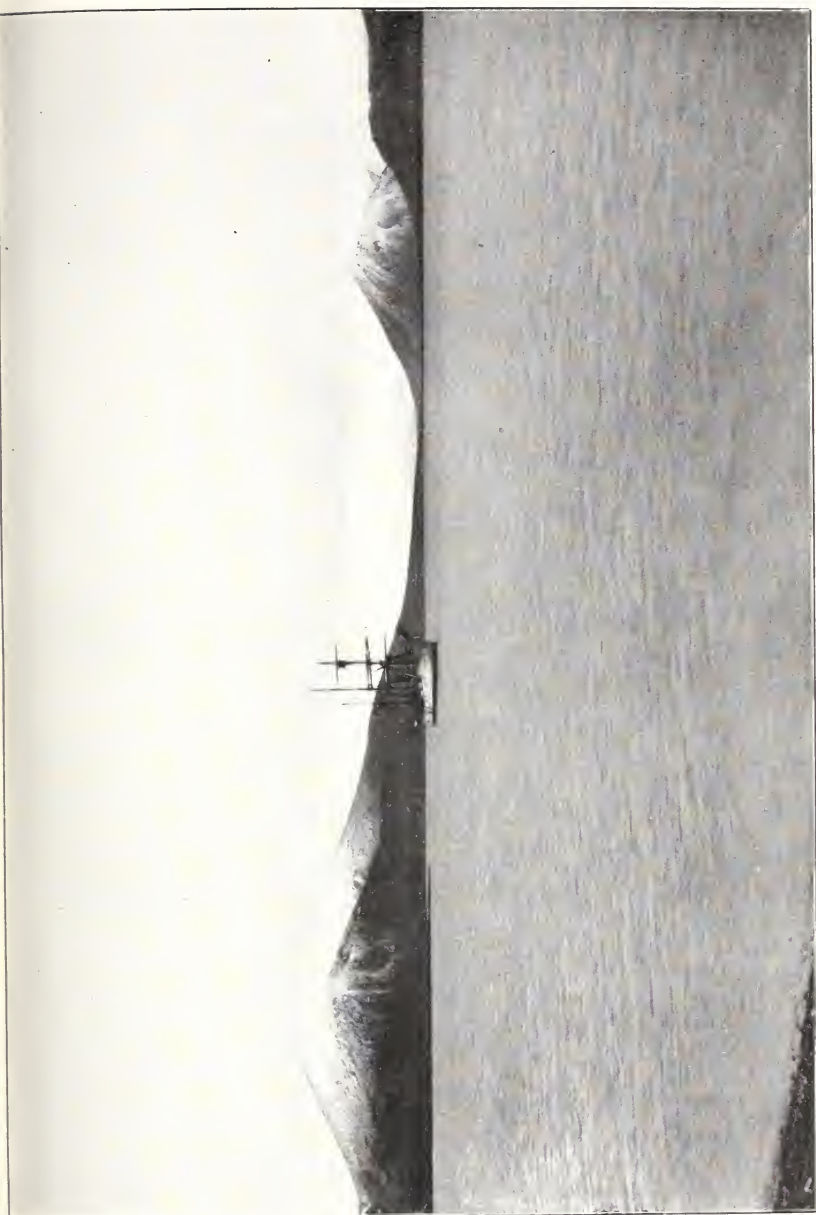
CHUCHEES, CAPE SERDZE KAMEN, SIBERIA.

Photo by Assistant Engineer A. C. Norman, R. C. S. Page 36.



CAMP OF DEER MEN, GLASSNAPP BAY, SIBERIA, 1899.

Photo by Chief Engineer H. W. Spear, R. C. S.



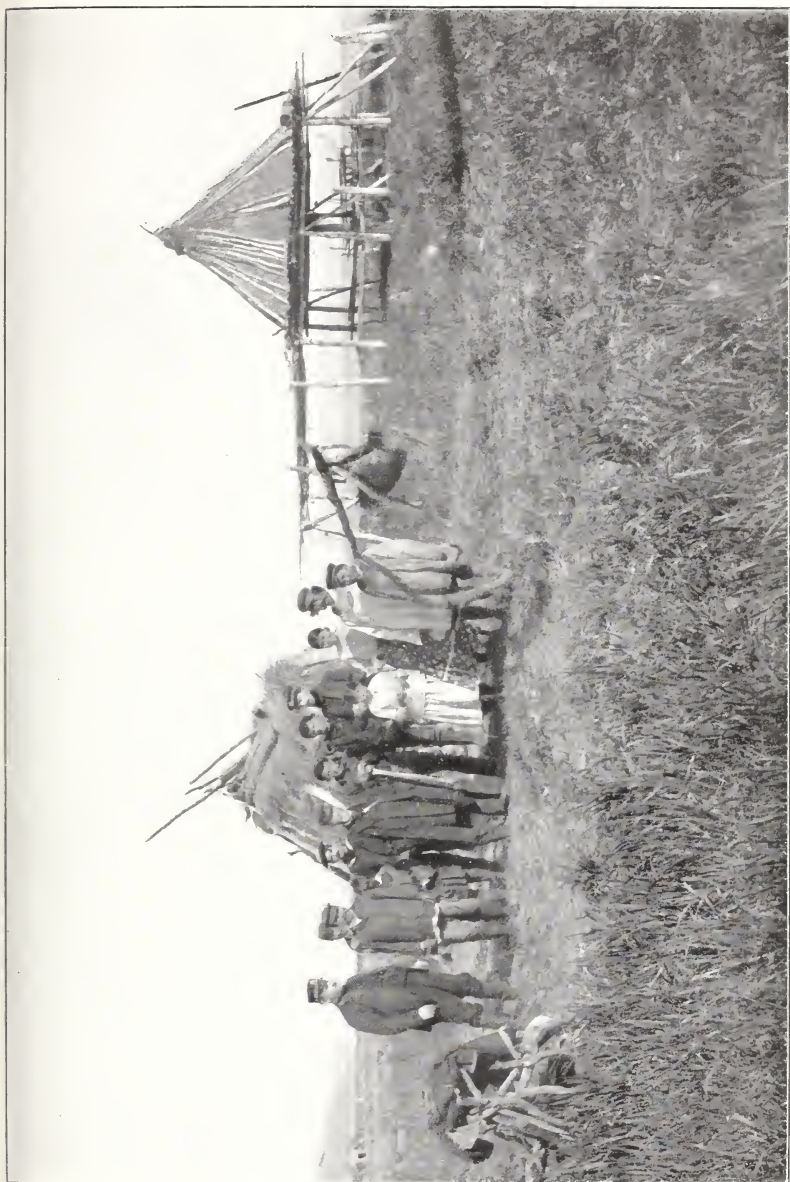
CUTTER BEAR IN GLASSNAPP BAY, SIBERIA, 1899.

Photo by Chief Engineer H. W. Spear, R. C. S.



MR. P. OSHURKOFF, GOVERNOR OF KAMCHATKA.

Photo by S. J. Call, M. D. (Reindeer Report, 1899, p. 28.)



GROUP FROM CUTTER BEAR AND NATIVES AT KARAGA HARBOR, KAMCHATKA.

Photo by S. J. Call, M. D. (Reindeer Report, 1899, p. 33.)



CHILDREN AT PETROPAVLOVSK, KAMCHATKA.

Photo by Chief Engineer H. W. Spear, R. C. S. (Reindeer Report, 1899, p. 29.)



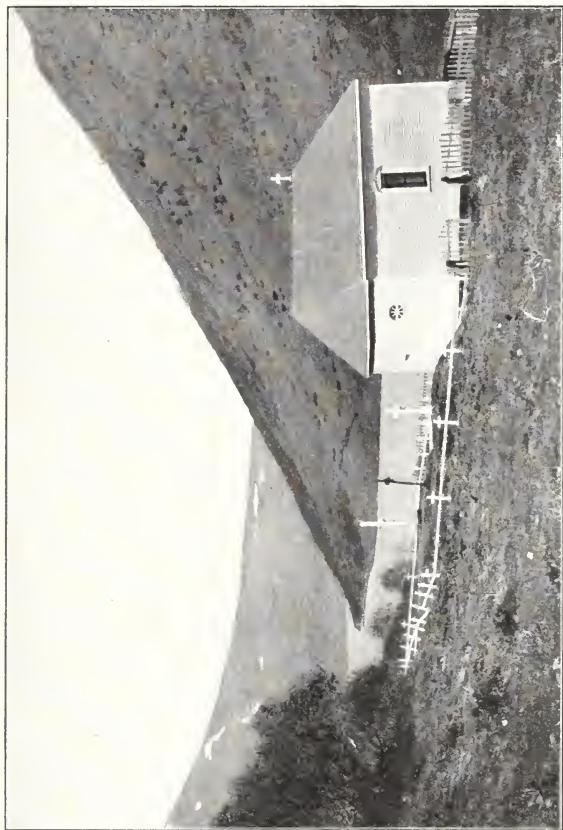
A HOUSE IN CENTER OF PETROPAVLOVSK, KAMCHATKA.

Photo by S. J. Gull, M. D. (Reindeer Report, 1899, p. 29.)



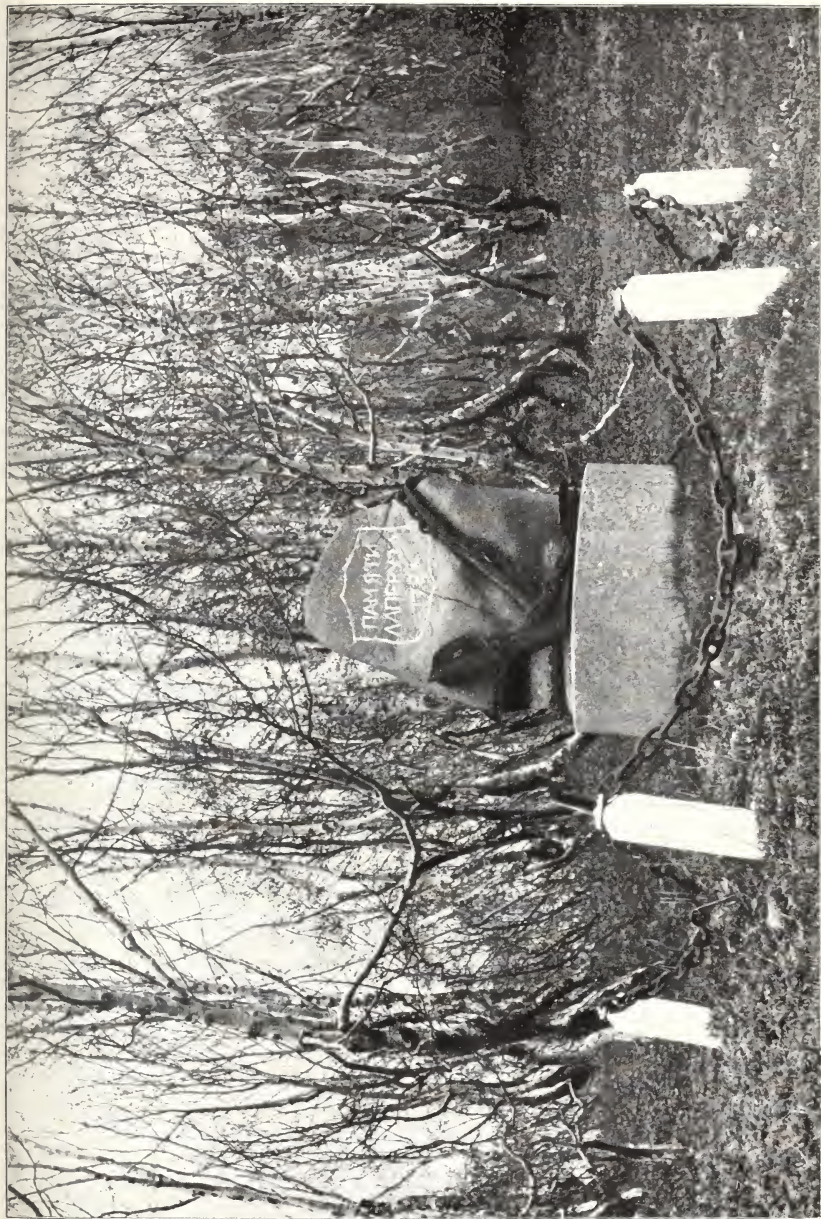
INNER AND OUTER HARBOR, PETROPAVLOVSK, KAMCHATKA.

Photo by Chief Engineer H. W. Spear, R. C. S. (Reindeer Report, 1899, p. 29.)



CHAPEL AND CEMETERY, PETROPAVLOVSK, KAMCHATKA, WHERE ARE BURIED THE RUSSIAN, ENGLISH, AND FRENCH KILLED IN THE BATTLES OF AUGUST 20-24, 1854. THE THREE GROUPS MARKED BY THE THREE CROSSES.

Photo by S. J. Gall, M. D. (Reindeer Report, 1899, p. 29.)



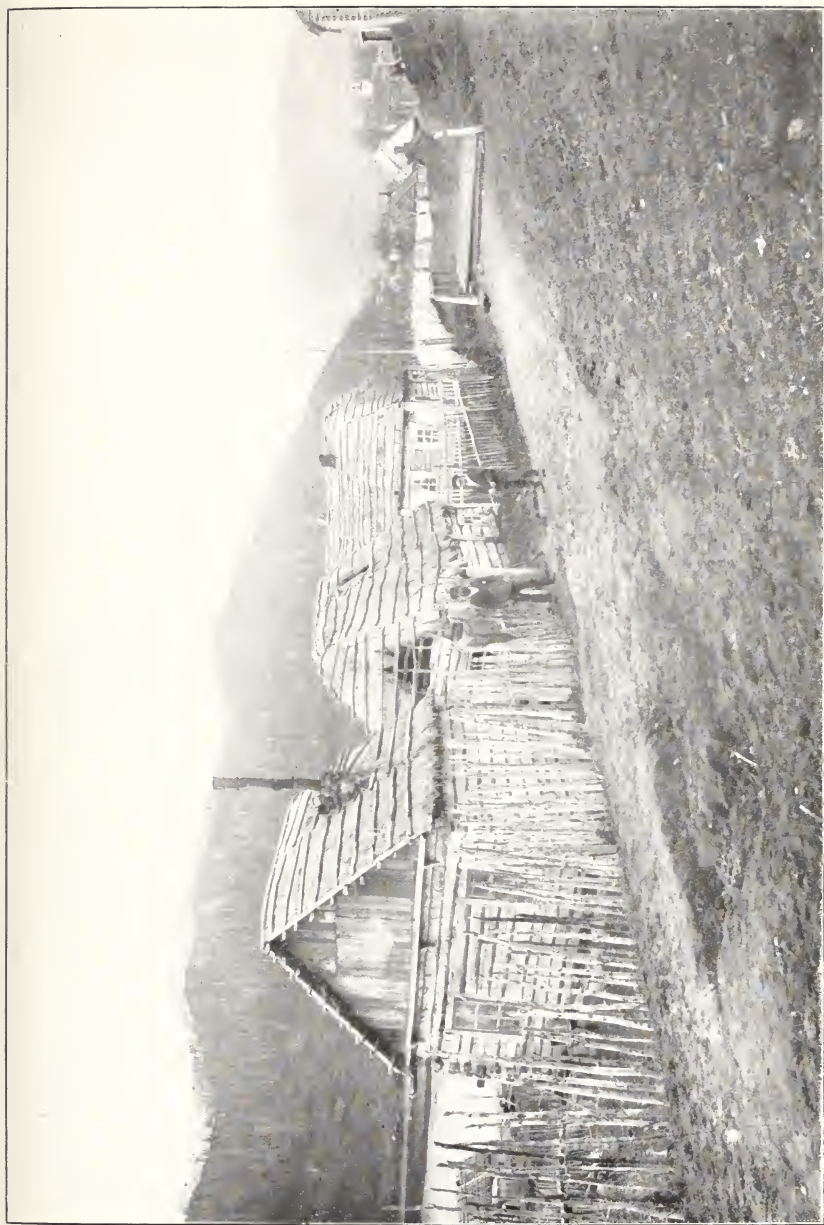
MONUMENT AT PETROPAVLOVSK TO FRENCH ARCTIC EXPLORER LA PEROUSE.

Photo by Chief Engineer H. W. Spear, R. C. S. (Reindeer Report, 1899, p. 29.)



OBELISK AT PETROPAVLOVSK, KAMCHATKA, CELEBRATING RUSSIAN VICTORY OVER
ENGLISH AND FRENCH FLEETS AUGUST 20-24, 1854.

Photo by Chief Engineer H. W. Spear, R. C. S. (Reindeer Report, 1899, p. 29.)



THE PRINCIPAL STREET, PETROPAVLOVSK, KAMCHATKA.
Photo by S. J. Call, M. D. (Reindeer Report, 1899, p. 29.)



PETROPAVLOVSK, KAMCHATKA.

Photo by Chief Engineer H. W. Spear, R. C. S. (Reindeer Report, 1899, p. 29.)



TAKING THE BABY'S PICTURE, SIBERIA.

Photo by First Assistant Engineer H. N. Wood, R. C. S.

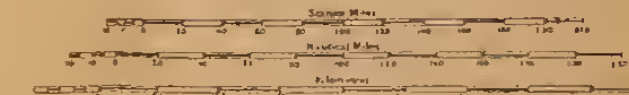






TO ACCOMPANY REINDEER REPORT BY
SHELDON JACKSON
GENERAL AGENT OF EDUCATION IN ALASKA.
1900

Scale 360000

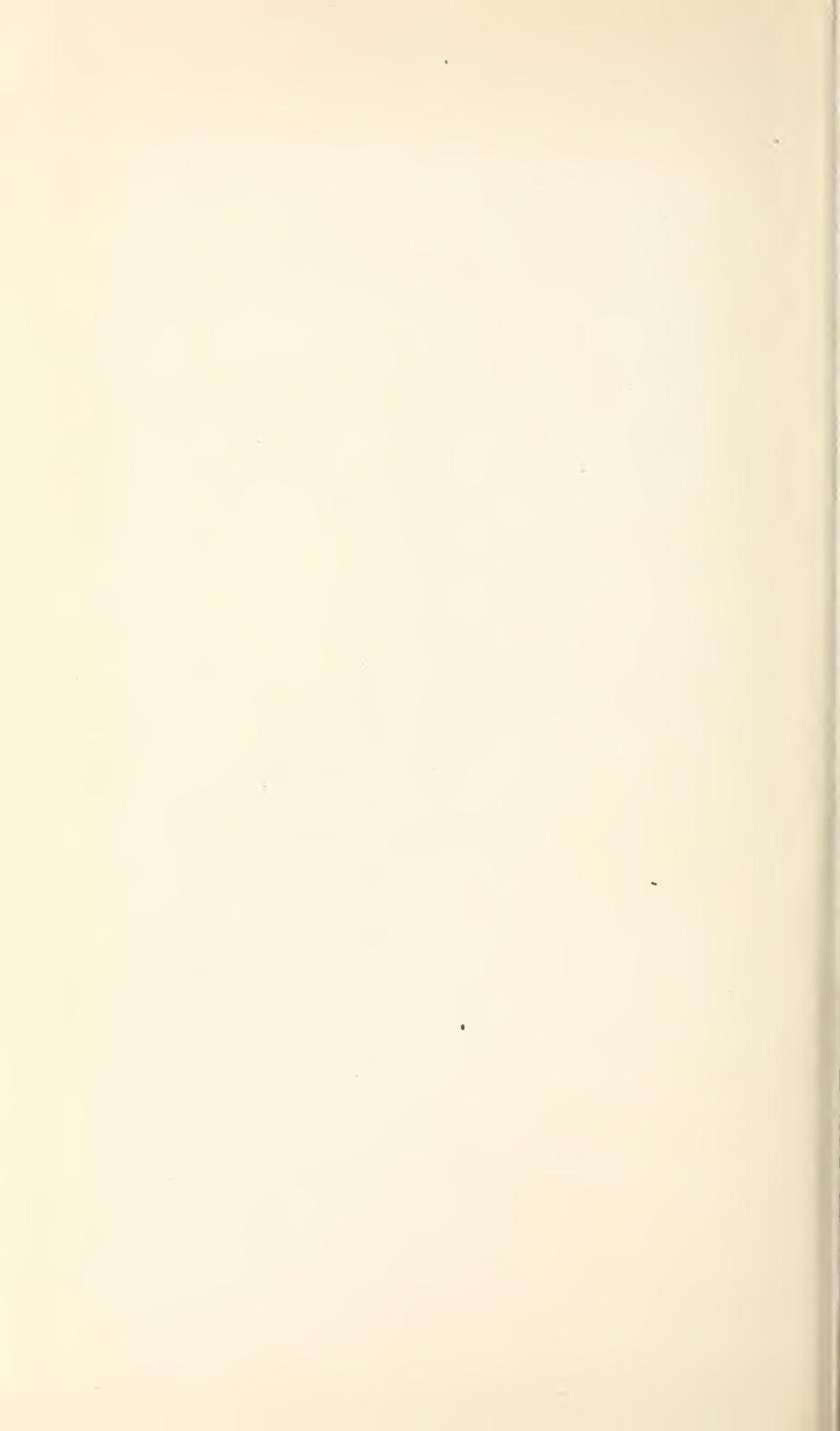


DISTANCE TABLE.

FROM PORTLAND OR. 1878
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 99. NEWARK 100 CORDERS
 100. NEWARK 100 CORDERS



APPENDIX.



LETTER OF COMMISSIONER OF EDUCATION TO THE SECRETARY OF THE INTERIOR.

DEPARTMENT OF THE INTERIOR,
BUREAU OF EDUCATION,
Washington, D. C., March 22, 1900.

SIR: Referring to the fact that for ten seasons past, with the single exception of the summer of 1898, through the permission of the Secretary of the Treasury and the courtesy of the chief of the Revenue-Cutter Service and of the captains commanding the cutters cruising in Alaska waters, the general agent of education for Alaska has been able to establish new and inspect old schools, visit reindeer stations, and procure, purchase, and transport domestic reindeer into Alaska. There being no regular line of steamers that furnish the necessary facilities for the prosecution of this work, this Bureau has depended for the continuance of its important work in those far distant regions upon the cooperation of the Treasury Department and the facilities afforded by its revenue cutters. I therefore respectfully suggest that a letter be written to the honorable the Secretary of the Treasury requesting, if compatible with the rules of his office—

First. That he will kindly request the commanding officers to extend to Dr. Sheldon Jackson such facilities as may be convenient to them and necessary for his work of inspection.

Second. That the commanding officer of the *Bear* be instructed to convey Dr. Jackson to the Siberian coast and call at Baroness Korfg Bay and transport to St. Lawrence Island one load of reindeer, at such a time in the summer as shall be convenient for the commanding officer of the vessel, the extra coal for such trip to be provided from the reindeer fund.

Third. That if it shall prove necessary to return any of the Lapps to Lapland next fall that the commanding officer of the cutter at hand be authorized to transport said Lapps south to the railways, rations for the same to be provided from the reindeer fund.

Very respectfully, your obedient servant,

W. T. HARRIS, *Commissioner.*

The SECRETARY OF THE INTERIOR.

LETTER OF SECRETARY OF THE INTERIOR TO THE SECRETARY OF THE TREASURY.

DEPARTMENT OF THE INTERIOR,
Washington, March 22, 1900.

SIR: I have the honor to transmit herewith a copy of a letter from the Commissioner of Education and to commend to your favorable consideration the requests therein contained that Dr. Sheldon Jackson, general agent for education in Alaska, be afforded accommodations on the cutter *Bear* in her cruise to the Bering Sea and the Arctic Ocean during the current year, and that the commanding officers of other cutters be directed to extend to him such facilities as may be convenient.

Also, that the commanding officer of the *Bear* be authorized, at such time in the summer as shall be convenient for him to do so, to convey Dr. Jackson to the Siberian coast and call at Baroness Korfg Bay and transport to St. Lawrence Island one load of reindeer; furthermore, that should it become necessary to return any of the Lapps in the employ of the Bureau of Education to Lapland next fall that he also be authorized to transport said Lapps south to the railways. The cost of the extra coal for the trip to the Siberian coast and to St. Lawrence Island, as well as such rations as may be necessary for subsisting the Lapps during their journey south, will be paid from the reindeer fund.

Very respectfully.

E. A. HITCHCOCK,
Secretary.

The SECRETARY OF THE TREASURY.

SECRETARY OF THE TREASURY TO THE COMMANDING
OFFICERS OF THE REVENUE-CUTTER SERVICE.

TREASURY DEPARTMENT,

OFFICE OF THE SECRETARY,

Washington, April 12, 1900.

The commanding officers of revenue vessels

cruising in Alaskan waters:

You are directed to receive on board the revenue vessel under your command Rev. Sheldon Jackson, general agent for education in Alaska, and convey him to such points as he may desire to visit in the discharge of his official duties, when it can be done without interfering with the duties of the vessel, with the understanding that you or the officers of your command shall be put to no expense for his subsistence while on board.

Respectfully,

O. L. SPAULDING,
Assistant Secretary.

ANNUAL REPORT OF EATON REINDEER STATION, BY DR. F. H. GAMBELL, M. D., SUPERINTENDENT.

[See page 12.]

EATON REINDEER STATION, ALASKA,

June 30, 1900.

SIR: I have the honor to herein submit to you for your consideration a report of the work devolving upon me as superintendent of the Government reindeer herds and herders of Alaska.

The work of the summer was the storing of the goods for our winter use in the storehouse at the station, removing them from the warehouse at the mouth of the river, where they had been placed when taken off the bark *Alaska* on the 12th, 13th, and 14th of July. Salmon were also caught and cured, the herd was given the proper attention, and pulkas and harness were made and repaired.

On the 1st of October Mr. S. Newman Sherzer was employed to act as assistant superintendent, which position he filled with credit until he was given the care of the mail between this place and Nome on the 1st of March.

Your letter of September 5, in which you instructed me to take the required number of deer from Golovin Bay to Synrook and deliver them to Charlie Antisarlook in payment for deer which had been formerly borrowed by the Government did not reach me until the 1st of October, when I deemed it too late in the summer to send out an expedition, so delayed until early winter, a report of which will come later.

Owing to the fact that you had given me special instructions to loan the Catholics at Nulato, on the Yukon, a herd of deer, I began early communications with them with the hope that they would cooperate with me in hastening the transaction.

Early this year they declared their willingness to take the herd, but I could not get men to go in charge of the deer, and informed them that they could have their deer counted and marked and left in the Government herd on the coast if they would furnish two native apprentices to stay with them during the breeding season and summer. By that time I thought that you would be here and could, in all probability, make satisfactory arrangements with the Laplanders to accompany and remain with the herd at Nulato. But in this they refused to comply. So I was forced to let the matter drop until your arrival in the summer.

Soon after my return from St. Michael, in October, I selected men and began preparing for the trip north, intending to go as far as Cape Prince of Wales and deliver Mr. Lopp his deer at the same time that I returned Charlie Antisarlook's at Synrook. Sleds and pulkas and harness were made and repaired; provisions for the whole trip were weighed out; fur clothing, sleeping bags, tent, and stove were all made in readiness, and on the 5th of November I left for the herd, which was feeding on the Egavik River, 20 miles from the station on our way north.

The herd was corraled and the respective number of males, females, and fawns were selected; males 109, females 108, and fawns (without regard to sex) 63.

On the following day we started on our journey, going over the coast mountains as there was not sufficient ice to allow us to travel upon the ocean.

Per Mathisen Spein was placed in the lead with his driving deer, while he had the bell deer fastened to his sled behind to act as leader of the herd. Ole Olsen Pulk drove the herd, using to help him his trained Lapish dog and a well-broken deer which was hitched to a sled upon which he rode. Nils Klemetsen and Per Porsanger brought up the rear with the provisions, tent, stove, etc., while I was at different places as it was convenient or I was most needed.

On the morning of the first day, 2 males, 1 female, and a fawn were sent back to the herd on account of lameness. On the 9th 1 female had to be killed on account of injuries which made her too weak to keep up with the herd.

Upon reaching Norton Bay we found that on account of the open water it would be necessary to go around, which we did, traveling part of the time on the coast ice and part of the time on the shore.

We averaged from 15 to 20 miles a day until we had to again take to the mountains, on the morning of the 17th, when due to the underbrush and rough trail we were not able to make over 4 miles a day for two and a half days.

On the 20th of November we reached Golovin Bay, where we spent five days in removing the Government deer from the herd stationed at that place in charge of the Swedish Evangelican Mission.

The following table shows the respective number of bucks, does, and fawns removed, also the original ownership:

	Bucks.	Does.	Fawns.	Total.
Moses' deer	5	35	25	65
Original loan	31	67		
Station increase	19	16		
Deer left in spring of 1899	2			
Deer landed in summer of 1899	33	8	3	
Total	90	126	67	

One deer being too lame to travel, was left in the Golovin Bay herd, also 11 sled deer for our return trip.

On November 25 one fawn became too lame to travel longer so had to be killed.

On the evening of the 29th we reached Nome, where we spent our Thanksgiving on the following day. Not having a calendar with me I had been bemoaning my lot on the Thursday before, which I took for Thanksgiving, and for dinner had half a dry salmon, a piece of hard bread, and a cup of coffee. On the real day my Thanksgiving was made pleasant through the kindness of R. J. Starke, of St. Louis, Mo., and the hospitality of D. J. Elliott and members of the St. Bernard Hospital.

We left Nome December 1 and arrived at Synrock the 2d and delivered to Charlie 286 deer, which made, with the number he had already received, 328.

At Synrock the Laps were sent home and instructed to stop at Nome and bring in from Snake River the sleds and harness, which had been left there the previous winter, and store them in the Government building at Nome. At Golovin Bay I instructed them to pick up 4 of the reserve deer and leave 7 for us upon our return. Another deer being too lame to travel was left in Charlie's herd.

On the 6th of December we arrived at Port Clarence, and on the 9th brought in from the herd 20 miles away 14 sled deer, six of which belonged to the mission at Golovin Bay. Six others were deer which belonged formerly to Golovin Bay, but were now turned over to the Government as our share of the natural increase, completing the partial division made at Golovin Bay. The remaining 2 were deer formerly in the Government herd at Eaton. I found 13 Government deer at Port Clarence, which I put into Dunnak's care, and 2 which I put into Toutuk's care.

At noon on the 13th of December we reached Cape Prince of Wales and delivered to Mr. Lopp 257 deer, retaining 5 deer for our return trip home.

I remained three days at Cape Prince of Wales and was shown every courtesy possible by Mr. and Mrs. W. T. Lopp, who ministered to all my wants and supplied me with needed articles and provisions for my return trip.

At Port Clarence we were storm-stayed for two days, but reached Nome in time to spend Christmas, where, in all probability, Santa Claus was for the first time seen driving his fabled reindeer to the Christmas tree, to the great delight of the children.

On January 4, 1900, our last day of traveling, the best sled deer became paralyzed and died while being hauled home.

The following table will give you at a glance the number of deer which were in the herd at different times and the disposition of the same:

Deer received.	Number.	Date.
Original number.....	280	Nov. 8
Golovin Bay deer.....	283	Nov. 24
In Charlie's care.....	42	Dec. 3
Found at Port Clarence.....	23	Dec. 9
Total.....	628	

Disposition of deer.	Number.	Date.
Returned.....	4	Nov. 9
Killed.....	1	Nov. 10
Reserved.....	11	Nov. 24
Lame; left at Golovin Bay.....	1	do.
Killed.....	1	Nov. 25
Delivered to Charlie.....	328	Dec. 3
Lame; left with Charlie.....	1	do.
Sent home.....	4	do.
Put in Eskimos' hands.....	15	Dec. 9
Delivered to Mr. Lopp.....	257	Dec. 13
Kept for return trip.....	5	
Total.....	628	

It will be noticed that the round trip, including the division of the three herds, was made in less than two months.

I might here state the way in which a herd of deer is divided, as it might be of interest and give you a better idea of the work which was accomplished. A well-timbered spot is selected and all the trees are felled, so that enough ground is cleared for the sized corral required. The fallen trees, which are mostly spruce, are now used for fencing in the cleared ground. The trees are piled one on the top of the other until a fence 7 or 8 feet high is built. When it is complete, we have two corrals in one, as it is built in the shape of a figure 8, with a narrow opening between. There is an outer opening, which is closed upon the entrance of the herd. Then the deer are driven into the first pen. Men station themselves at the opening between the two pens and with their lassoes lasso and drag by main force the deer from the occupied into the unoccupied pen. You will see that the division requires time and labor as well as skill, and to a person unaccustomed to the work it is very interesting and exciting, for the deer are continually running and plunging during their confinement, clashing their antlers and hoofs, plunging and struggling for freedom when the well-thrown lasso entangles their horns, and at times when an old buck is caught he will charge upon his captors with all the fury of a wild animal.

When the required number are selected, the original herd is driven out and away, while the new herd is driven in an opposite direction.

At Golovin Bay it was necessary to build a corral and lasso every deer in the herd. At Synrook, there were no trees with which to build a corral, but I had noticed that as the deer passed over slick ice they would not bunch together, but would pass over one at a time, and so could at that time be counted. I instructed my men to find a

pond of suitable ice and to build a "chute" of the willow brushes which grew quite plentifully on the river bottom. This was done, and the herd was first divided in a body so that about the proper number would be in one of the divisions. Then the herd selected was driven upon the ice, and as they emerged one at a time through the "chute" they were counted. This saved much labor, as only a few needed to be lassoed to secure the exact number.

We traveled with stove and tent, and for bedding we had nothing but our light deerskin sleeping sacks, weighing from 8 to 10 pounds apiece. We were comfortable, although we were out during the worst season of the year.

I adopted the Eskimo dress, and at no time froze any part of my body, although the Laplanders in their costumes froze their faces on several occasions.

Provisions were left at Golovin Bay and Synrook for our return. There being more at Golovin Bay than we required, they were afterwards turned over on our account to the Golovin Bay Mission.

As you had instructed me to contract with seven Laplanders for another year at a salary of \$500 a year, I made known to them during the first part of November what my intentions were. On the 15th of January the men were asked if they wished to contract for another year at the above salary. They were all of the opinion that it was not sufficient if they were to buy their own clothes and provisions. As they dress in skins practically during the whole year, and as the great influx of miners has greatly reduced the supply of furs, they reasoned that their salary would be wholly consumed in supplying the wants of their families and themselves. Such a condition of affairs not having been anticipated, I had received no instructions as to what should be done under the circumstances. Knowing that the deer needed attention, I contracted for a continuation of the old contracts with the following parties: Ole Olsen Bahr, Johan Isaksen Tornensis, Per Mathisen Spein, and Alfred Hermansen. The others were allowed to remain at the station and buy their provisions and clothing at cost price.

Lars Larsen Anti, who has been an invalid since his arrival in Alaska, and from his history the greater part of his life, was furnished provisions until his death, on the 22d of April, 1900.

During my absence at Cape Prince of Wales, Mr. Sherzer very ably superintended the work connected with the station. On Christmas Rev. Mr. Quist, Miss Peterson, and Miss Alice, of the Swedish Mission at Unalaklik, came up and assisted in giving the people a Christmas treat. Both the Lapish and Eskimo people were in attendance.

The school this year was taught by Mr. Sherzer, and was not only attended by the Lapish children, but by the children of the Eskimos who were living near the station. The attendance was good and the progress in the English language marked. Owing to the shortness of Mr. Sherzer's stay at the station there could not be as much time

given to the school work as formerly, yet, more progress was noticed this year than last, owing in part to the preparation for this year's work made last year.

The health of the people this year has been better than last. With the exception of two cases of typhoid fever the diseases have been about the same, only greatly lessened in number. The natives have been frequently alluded to; also a number of miners have been treated.

As Cape Denbigh seems to be an ideal breeding and summer feeding ground, owing to the fact that it is much exposed to the winds, has good pasturage, is in greater part dry and free from bog, and is surrounded by the sea and the proper soil, I saw fit to have a house built in the vicinity, as three months provisions are required to be hauled at one time to the locality and a shelter should be given them. I therefore employed some of the idle men to construct a house from the drift timber, which is very abundant in that neighborhood.

As to the use of the deer during the year: According to instructions which were given me I was to let the mail carriers have deer for the first two trips across the Koltag portage and on to Nulato. On the first trip, on account of not receiving your instructions in time and the deer being at a distance, they were not in readiness upon the arrival of the mail carrier, so I could not accommodate him. Upon his return from Nulato he took deer to St. Michael and return and then on to Nulato and back; fresh deer were also given him to St. Michael.

Deer were employed wholly in transporting our goods to and from Cape Prince of Wales and proved themselves to be far superior to any other animal at our command, the time required for our home trip being but eleven days' travel during the shortest days of the year.

During the latter part of February and the first of March a few deer were used in hauling some provisions from St. Michael to Norton Bay for G. L. Stanley & Co.

The deer have been used altogether in connection with the work of the station, while quite a number of young deer have been broken during the spring.

In the breaking of a deer that has never been worked before the general method is as follows: He is first lassoed, and as the lasso is entangled in his antlers, which he is very careful of, there is a struggle at the start, which increases as he sees his captor approaching him hand over hand upon the lasso. At this time his antics are so frantic that he often throws himself, but is up again as soon as he is down. When the lassoeer has reached his horns he grasps one with either hand and dexterously throws the deer upon his back, where he lies passive. Should he not be able to grasp the horns, but on the contrary should the deer rise upon his hind feet and strike with the fore, there is a rapid retreat, or else by shielding himself

with his well-clothed arm he wards off the rapid blows of his antagonist and grapples, catching the deer around the neck, when he is soon thrown. When once down he immediately gives up the struggle. Then the louchee or halter is fastened on his head and with a long rope or strip of untanned leather he is made fast to one of the numerous moss hummocks and allowed to run and jerk for several days, until he finds what it is to be fastened. After he has learned that lesson he is untied and lead to the place where he is to be harnessed. Now comes the difficult work, that of harnessing him, for his wild deer-like nature is awake to every imaginable danger. Upon the least approach of his trainer he is off at full length of his louchee. Should anyone attempt to follow his line up to his head his formidable front feet are to be contended with, and there is also a sidewise twist of the head which brings one of the long, branching antlers down with a thump which is not to be relished should it strike any part of the body unprotected.

Often he needs to be again thrown and in that position harnessed. Sometimes the deer seems to be hypnotized upon the cat-like approach of the one intent upon harnessing him and will stand as in a cataleptic condition until the harness is slipped upon him and the two necessary fastenings made which not only harness him but hitch him at the same time. When he finds that he is fastened in a new way, and feels the lengthened tug rubbing between his hind legs and the pressure of the hames on his shoulders, he makes his greatest demonstrations and struggles for liberty. This performance is continued for several days, and if the deer promises to make a good driving deer he is patiently worked with for days and driven for miles at a time until he becomes accustomed to his driver, harness, and sled. If he is to be used for a draft animal, a few days of preparatory work is all that is needed and he can be given his load and tied on behind a loaded sled or pulka in front of him while another deer similarly loaded can be attached by the halter strap to his sled.

It gives me pleasure to report to you upon the successful manner in which the deer transported the mail to and from Nome during the latter part of last winter. The speculations which were made that the deer could not be relied upon proved to be as groundless as most of the reports which are made by people who have never handled this useful animal.

From the absence of the mail contractor, William A. Kjellmann, and his agent, D. J. Elliott, signifying his unwillingness to take up the work, I released S. Newman Sherzer from his duties as assistant superintendent and put him wholly in charge of the mail, while I attended to the duties at the station. Five consecutive successful trips were made. The time required for the round trips, a distance of 450 miles, was as follows: First trip, fourteen days; second trip, thirteen days;

third trip, eleven and one-half days; fourth trip, eleven and one-half days; fifth trip, fifteen days. This record proves without a doubt that with the proper attention given the deer they are the swiftest means of winter transportation in this part of Alaska. Men who were so willing to condemn the deer upon hearsay were silenced by these facts. On the second trip with the mail, dog teams and a bicycle which passed the station on the way to Nome two days before we left with the mail, were met going into Nome on our return, after having delivered the mail and rested thirty hours. This was partly due to the storm which was raging at the time of leaving the station. It is a noted fact that for dogs to make good time they must have a beaten trail with no soft snow, while it is not the case with the deer.

Our success in carrying the mail was due to three conditions: First, the capability of the deer; second, the close attention given to the work by Mr. Sherzer; and third, the expertness of the driver, Nils Klemetsen.

In closing my report I would beg leave to make a few suggestions. I do not ask for time and space in recommending your action upon things which have been recommended in previous reports. Neither would I suggest things which must be apparent to every stockman and which would naturally present themselves to you; but I would suggest, first, that the interests of the Government in the different herds be manifested in supplying them at a nominal cost with timber suitable for sleds, pulkas, and harness. Also, that where the natives are independent of any mission, to place within their reach a supply of flour, bacon, tea, baking powder, and sugar, that they might get it without paying five times the value of it.

At this station valuable timber for sleds, pulkas, and harness can be secured in great abundance, while at the herds which I visited during my trip last winter there was no proper wood at their command, with the exception of Golovin Bay.

One more suggestion I would make, which has probably been thought of by yourself long ago, and it is that a personal visit and examination of every herd in Alaska be made at least once a year by some man in authority, and a full report be made to the Department. I would suggest that the Point Barrow and the Point Hope herds, also the herds which you are intending to send to the Kuskoquim and St. Lawrence Island, be visited during the summer months, while the herds at Kotzebue, Cape Prince of Wales, Port Clarence, Synrook, Golovin Bay, Eaton, and Nucleet be given attention during the winter months. I would have a personal inspection, inquiring into all the details of the herd, the herders, the moss supply, and everything connected with the deer. Not only that, but I would have the inspector learn their needs, make suggestions, and be not only an inspector but an advisor and helper.

Trusting that the work will be carried on successfully, and that the efforts to introduce this valuable animal into Alaska be greater from year to year,

I remain, your obedient servant,

FRANCIS H. GAMBELL.

Dr. SHELDON JACKSON, D. D.,

General Agent of Education in Alaska,

Washington, D. C.

Death rate.

	Sex.	Age.	Date.	Cause of death.
		<i>Years.</i>		
1 deer.....	Male.....	.....	July 3	Grubs in back.
Do.....	Female.....	.....	July 15	Lung disease.
2 fawns.....	.....	.....	July 25	Tongue disease and weakness.
1 deer.....	.....	4	Aug. 17	Protracted sickness.
Do.....	.....	1	Aug. 18	Do.
Do.....	.....	.....	Aug. 22	Found dead; unknown disease.
Do.....	Fawn.....	.....	Aug. 25	Broken back.
Do.....	Female.....	.....	Sept. 19	Tongue disease.
Do.....	do.....	2	Sept. 20	Internal disease.
Do.....	Male.....	4	Sept. 26	Broken leg.
Do.....	do.....	2	Sept. 29	Fell over bluff.
Do.....	Female.....	.....	Sept. 30	Internal disease.
Do.....	Male.....	2	Oct. 3	Lung disease.
2 deer.....	Female.....	.....	Oct. 6	{Choked on bone.
1 deer.....	Fawn.....	.....	Oct. 6	{Broken neck.
Do.....	Male.....	3	Oct. 9	Internal disease.
Do.....	Fawn.....	.....	Oct. 10	Broken leg.
Do.....	Male.....	4	Oct. 26	Internal injuries.
Do.....	do.....	1	Oct. 28	No cause given.
Do.....	Male fawn.....	.....	Nov. 6	Foot disease.
Do.....	do.....	.....	Nov. 15	Do.
Do.....	Male.....	.....	Nov. 19	Found dead.
Do.....	do.....	3	Nov. 24	Strangled by halter.
1 fawn.....	.....	.....	Dec. 13	Found dead.
1 deer.....	Male.....	6	Jan. 3	Paralysis.
2 deer.....	Fawns.....	.....	Jan. 7	Septicemia.
Do.....	Males.....	12	Jan. 11	Slaughtered.
4 deer.....	.....	.....	Jan. 12	Diseased and ordered slaughtered.
1 deer.....	Male.....	6	Mar. 9	Injured in the ice.
Do.....	do.....	.....	May 2	Bladder disease.
2 deer.....	do.....	.....	May 9	{Killed by dogs.
Do.....	Fawn.....	.....	May 9	{Do.
1 deer.....	Male.....	4	May 15	Choked by halter.
Do.....	Female.....	2	May 16	Calving.
Do.....	do.....	4	May 18	Do.
Do.....	do.....	2	June 15	Killed by dogs.
Do.....	Fawn.....	.....	June 22	Shot by miners.
Do.....	Female.....	2	June 24	Septicemia.

UNALAKLIK, ALASKA, *February 5, 1900.*

DEAR SIR: Have sent you a report of my trip to and from Cape Prince of Wales, via Nome, in which I have reported in detail as to the various occurrences of importance. In this letter, which is carried by Mr. Dana, of the Simpson Company, of Nome, via Katmai, I will give you an abbreviated report. I left the station in November and delivered Charlie Antisarlook's and Mr. Lopp's deer in December and returned to the station the 3d of January, having made the return trip in eleven days' traveling.

All the Laplanders have stated that they would not remain at the station another year at the salary fixed by yourself before you left.

Have retained four under the old contract to remain until your arrival. I will take an Eskimo family from Shaptolik to assist in caring for the deer. Such family will remain with the deer until you come, and in pay for services will receive food and clothing. I consider it best to have two Eskimo families, namely, the one taken last year and the one which I will engage soon. Should you not care to pay the wages which the Laplanders demand, two families of Eskimos will be able to care for the herd.

I have sent you Charlie's receipt, via Katmai.

A few families will request to be taken home, I think, but a number of them wish to go to the gold fields.

Trusting that all is being done for the best,

I remain, your obedient servant,

FRANCIS H. GAMBELL, M. D.

Dr. SHELDON JACKSON, D. D.,

General Agent of Education in Alaska,

Washington, D. C.

EATON REINDEER STATION, ALASKA,

January 31, 1900.

DEAR SIR: There is general dissatisfaction at the station among the Laplanders. None of them will contract for another year's service in Government work. I have contracted with four men on the same terms as their old contract, for the coming six months, that the herd might be attended to until your arrival at least. Their names are as follows: Johan Isaksen Tornensis, Ole Olsen Bahr, Per Mathiser Spein, Alfred Hermansen.

Respectfully,

FRANCIS H. GAMBELL, M. D.

Dr. SHELDON JACKSON, D. D.,

General Agent of Education in Alaska, Washington, D. C.

DAILY JOURNAL OF EATON REINDEER STATION FROM JULY 1, 1899, TO JUNE 30, 1900.

[Written from July 1 to November 1, 1899, by Francis H. Gambell, and from November 2, 1899, to June 30, 1900, by S. Newman Sherzer.]

July 1: 42°. ¹ Light west wind. Cloudy. Dr. Gambell returned with the mail.

July 2: 44°. West wind. Rain all day. Some of the Laplanders went to Unalaklik.

July 3: 45°. West wind. Bright, warm day. Temperature, noon, +65°. River muddy and rising. Dr. Lerrigo, the new station physician, arrived this noon.

July 4: 58°. Warm day with few clouds. West wind. The river is higher this morning than it has been for some time. Eaton did not celebrate this year.

July 5: 55°. Cloudy. Some fishing done to-day.

July 6: 58°. Bright day. West wind. A crew went to Unalaklik to procure building logs from the beach.

July 7: 55°. Bright, warm day. Cloudy in the afternoon.

July 8: 57°. Clear day. Wind from the west. The boat which took the provisions to the herd returned, reporting all well. Mr. Hayden, of Tacoma, came up to visit the station.

July 9: 54°. Clear forenoon; raining in the afternoon. Two Eskimos came up and stated that the ship with the Government provisions had put in at Unalaklik and would unload to-morrow. The mosquitos are becoming quite numerous.

July 10: 51°. Cloudy, with mist in the morning. Crew of workmen went to Unalaklik. Sea too rough to unload.

July 11: 50°. Strong west wind. Cloudy. Sea still too rough.

July 12: 55°. Bright day. A few loads taken on shore from the boat this evening.

July 13: 49°. Cloudy. The men worked all day unloading the supplies.

July 14: 52°. Cloudy and raining. Last of the provisions were brought in this morning. The goods were stored in the warehouse. A load of provisions was hauled up to the station.

July 15: 50°. Cloudy and rainy. The river is rising.

July 16: 48°. Cloudy; wind variable.

¹The temperatures at 7 a. m., unless otherwise specified.

July 17: 49°. Cloudy; wind most of the day. Two Laplanders took Dr. Lerrigo down to Unalaklik to see if the mail had arrived.

July 18: 52°. Cloudy; strong west wind. Temperature 7 p. m., 54°.

July 19: 48°. Cloudy. Strong west wind this forenoon; quiet this afternoon. A boat went to Unalaklik for provisions this forenoon. Dr. Lerrigo returned without the mail. The river is almost overflowing its banks, but is falling this evening.

July 20: 58°. Bright, warm day. Temperature at noon, +64°. Alfred brought the mail up from Unalaklik this evening.

July 21: 56°. Cloudy; east wind. General letter writing to-day. The river has fallen—almost normal again.

July 22: 56°. Partially cloudy; strong east wind. The men with the boat returned this evening.

July 23: 54°. East wind; cloudy in the forenoon.

July 24: 57°. Dr. Gambell went to Unalaklik with the men.

July 25: 59°. Cloudy.

July 26: 65°. Warm and bright.

July 27: 75°. Days becoming very warm. River quite low.

July 28: 74°. Dr. Gambell returned from Unalaklik in evening; also the men with load of provisions.

July 29: 76°. Clear, warm, and bright all day.

July 30: 80°. Mr. Quist came from Unalaklik and conducted a meeting in the evening. Cloudy in the evening. Thermometer reached +85° during the day.

July 31: 64°. Rainy all day. Men started for the herd with provisions in the afternoon. Mr. Quist and Dr. Gambell went with them. Temperature fell to 55°.

August 1: 64°. Cloudy all day; frequent showers. Lapps who have been with herd arrived in forenoon; also Eskimo John, who has pitched his tent near the village.

August 2: 60°. Cloudy all day; frequent showers. Dr. Jackson and Mr. Kjellmann arrived at 5 a. m. After settling accounts left again at noon for Unalaklik.

August 3: 57°. Cloudy all day; no rain. Dr. Gambell returned from St. Michael; also the men with a load of provisions. Temperature 8 p. m., +56°.

August 4: 55°. Rainy. Dr. Lerrigo went to Unalaklik with the men transporting provisions.

August 5: 55°. Cloudy. Men at work repairing storehouse.

August 6: 58°. Bright most of the day. Station visited by a good many Eskimos.

August 7: 60°. Clear and warm day. Serosky and family went up the river to fish.

August 8: 58°. Clear day. Dr. Lerrigo returned with the men from Unalaklik and reports that Miner Bruce with his schooner is taking the provisions from Port Gardner to Cape Nome.

August 9: 58°. Cloudy. Dr. Gambell left for Unalaklik with the men.

August 10: 58°. Clear and bright. Men returned from Unalaklik with load of provisions.

August 11: 63°. Slightly cloudy. Boat went to Unalaklik again.

August 12: 55°. Cloudy in forenoon; bright and warm in the afternoon. Boat returned from Unalaklik with provisions.

August 13: 64°. Bright in morning; slight showers in afternoon.

August 14: 60°. Bright and warm. Dr. Lerrigo left for Unalaklik.

August 15: 62°. Forenoon bright; showery in afternoon. Stephen left for Cape Nome.

August 16: 60°. Cloudy and rainy all day. Men were sent out to fish this morning.

August 17: 47°. Cloudy, with showers in the evening. The rain yesterday raised the river. The men who went seining returned with a boat load of salmon-trout this evening.

August 18: 47°. Cloudy. Four men were sent up the river to fish this morning.

August 19: 46°. Coldest during the night, 36°. Bright morning, with a strong east wind blowing. More fish salted this evening.

August 20: 50°. Cloudy in morning; rainy and chilly in afternoon.

August 21: 49°. Cloudy and rainy. The men were sent to Unalaklik to fish and transfer the station goods across the river into the new storehouse, which has just been finished.

August 22: 52°. Cloudy in forenoon; rainy in afternoon.

August 23: 50°. Cloudy and rainy. Dr. Lerrigo returned with the fishing party to-day. Several barrels of salted salmon were brought from Unalaklik by the men. Mrs. Aslak Gaup gave birth to a girl this afternoon.

August 24: 41°. Bright, with chilly west wind. More fishing done this afternoon.

August 25: 33°. Coldest during the night, 26½°. Frost. Bright, with east wind.

August 26: 40°. Rained hard the most of the day. Dr. Jackson and Mr. Kjellmann arrived at the station this morning at 4 a. m. They returned to Unalaklik after transacting the necessary business.

August 27: 44°. Rained a good part of the day.

August 28: 45°. Rainy and cloudy, with a strong southwest wind. A boat load of provisions came up this evening.

August 29: 47°. Cloudy. The river is almost bank full. Provisions were prepared to-day for to-morrow's distribution.

August 30: 48°. Cloudy and rainy. Martin Jacobson (native) came up from Unalaklik and sold two female deer to the Government.

August 31: 49°. Cloudy and rainy in the morning, but cleared up during the forenoon. The men from the herd came in for their provisions, and reported that the deer were in excellent condition. Some men were sent to the mouth of the river to fish.

September 1: 43°. Foggy in the morning; cleared up during the day. The herders left for Shaltoolik about noon.

September 2: 40°. Clear and bright. The superintendent, with four men, left for St. Michael on business this morning.

September 3: 45°. Clear and bright.

September 4: 42°. Cloudy and rainy all day.

September 5: 42°. Cloudy. Superintendent and men returned from St. Michael to-day, bringing with them bacon.

September 6: 43°. Cloudy. The salmon are plentiful just now.

September 7: 50°. Clear. The schoolroom has been repaired and the landslide on the north side of the house removed to-day.

September 8: 43°. Bright and clear. A boat went to Unalaklik for bacon.

September 9: 44°. Bright, with an east wind blowing. The men with the bacon returned to-day. Mr. and Mrs. Stephen Ivanoff visited the superintendent this afternoon.

September 10: 43°. Cloudy most of the day. The trees are becoming decidedly golden and the hills are ruddy with the change of color of the blueberry bushes.

September 11: 45°. Rained during the night and most of the day.

September 12: 40°. Bright, with strong east wind in the morning. Clouded later and rained most of the afternoon. Four men were sent up the North River on a hunting expedition. The Eskimos have left the point below the station and have gone farther up the river, as the salmon are very scarce this far down. The station people were fishing some this afternoon.

September 13: 40°. Bright, with light wind from the east in the morning; clouded and rained later in the day. One of the Eskimos brought in a large bear from Mount Leora, the first that has been killed this year.

September 14: 39°. Much rain during the night and day. Five men were sent up the Unalaklik River to catch and cure fish for ten days. Sleet this evening.

September 15: 36°. Rained hard last night and snowed on the mountains so that they are white down to the foothills. The Eskimos are around gathering up all the coal-oil cans for the stoves. Snow flurries during the day.

September 16: 26°. Coldest during the night, 23°. Rain and snow during the day.

September 17: 30°. Snowed all night; 2 or 3 inches on the ground this morning. Snowed during the most of the day. The Laplanders who were sent up the river returned at noon stating that the fish had left already and that there were no more in the river. If that is the case many of the Eskimos will go hungry this winter, as they have but a small supply.

September 18: 32°. Cloudy and snow. Snowed most of the day.

A trip was made up the river, and 40 or 50 logs, previously cut for buildings, were found. The mail was also taken to Unalaklik.

September 19: 35°. Sun shone part of the time. Three men were put to work building pulkas, two at sawing boards, and three at piling moss for winter feeding.

September 20: 30°. Bright in the morning, with strong east wind; snowing in evening.

September 21: 30°. Snowed all night; bright during the day and snow all melted. The men who were sent up the North River returned. One of the station boats was put in readiness for the winter.

September 22: 32°. Snowed during the night and most of the day. A trip was made to Unalaklik and back. Martin Jacobsen sold two of his female deer to the Government this afternoon.

September 23: 23°. Bright most of the day. Two men were sent out to work the road between here and Unalaklik; four men are piling moss; others are making pulkas and repairing harness and sleds.

September 24: 32°. Snowed a good deal last night, also during the day.

September 25: 32°. Snowed during the night. Two of the carpenters went to Unalaklik this morning to do some needed work. Snowed in the evening and during the night.

September 26: 27°. Coldest during the night, 21°; cloudy and quiet this morning. In the after part of the day blew and snowed very heavily. Some Eskimos came down the river from their fishing camp.

September 27: 35°. Rainy and cloudy all day.

September 28: 18°. Cloudy; snowed part of the day. The two carpenters returned from Unalaklik this afternoon. Ptarmigan are very plentiful this fall near the station, and quite a number are being shot. Aukon is putting up his winter house down by the storehouse, near the river. He wants to send his children to school this winter, so moves closer to the station.

September 29: 22°. Cloudy. Some fishing was done, and a few salmon trout were caught. Sewsky came down the river on his way to Unalaklik.

September 30: 29°. Snowing in the morning.

October 1 to 6: Superintendent at St. Michael. Snowed during the intervening time. River froze up. Necessary work at the station went on as usual. Men from the herd came in to the station with the whaleboat.

October 6: 26°. The superintendent, with Mr. S. Newman Sherzer, arrived from St. Michael with the mail. Mr. Sherzer will act as assistant superintendent during the remainder of the fiscal year.

October 7: 35°. Raining and the snow disappearing on the lowlands.

October 8: 36°. The river broke up in places. Raining part of the day.

October 9: 34°. First overland mail arrived late at the station. Two Laplanders went to Unalaklik to-day.

October 10: 30°. Dunlap, the man with the mail, started on his way to-day. Cloudy most of the day. Three Yukon Indians passed through on their way to Nulato late this afternoon.

October 11: 26°. Cloudy, with strong east wind. Some of the station people were sent to the herd with provisions.

October 12: 37°. Cloudy and rainy. The Laplanders returned this morning from taking the provisions to the herd.

October 13: 35°. Rained during the night. Snow all gone on the lowlands and most of it on the mountains. Some Eskimos came up from Unalaklik with a note stating that a miner was sick in the village and needed some medical attention.

October 14: 35°. Rained during the night. Strong east wind blowing in the morning. Some natives went up the river to go into winter quarters.

October 15: 28°. Snowed a little during the night. Stephen's schooner came into Unalaklik from St. Michael, bringing an Alaska Commercial Company trader with his goods.

October 16: 26°. This morning the ground was covered with snow. The carpenters repaired one of the rooms of the main building to-day. Harness is being mended, pulkas and sleds repaired, and other preparations are being made for winter.

October 17: 28°. Snowed during the night, cloudy in the morning, and turned cold in the evening, 15°. Nils Bals brought his two children up from Unalaklik. They were brought home from St. Michael sick with the typhoid fever and are still sick.

October 18: 11°. Clear, bright, and still in the morning; cloudy and windy in the afternoon. Floating ice in the river all day.

October 19: 13°. Clear, with a strong east wind which blew all last night. Began snowing at noon and continued the rest of the day.

October 20: 20°. Coldest during the night, 10°. Snowing and blowing. The river in front of the station is now frozen over. The scholars were gathered and started with their lessons ready to begin school work next Monday.

October 21: 18°. Clear and still. Temperature at noon, 47°. The carpenters put a new desk in the schoolroom.

October 22: 14°. Wind blowing from the east. The superintendent returned from a medical call to Unalaklik this evening.

October 23: 26°. Wind still blowing from the east. Mr. Sherzer began school with an addition of three Eskimo children to the number who attended last year.

October 24: 29°. The herders came in after their provisions with deer last evening and found sledding poor. Mild all day.

October 25: 35°. Snowed during the night, and the water is running over the ice on the river. Two miners came up from Unalaklik and

spent a couple of hours at the station. Late in the evening Mr. Dunlap and native arrived with the mail from Nulato.

October 26: 32°. Wind blowing from the east. Deer with their provisions left for the herd. Men were sent to bring deer in for hauling provisions on our Cape Prince of Wales trip, also deer for Nulato.

October 27: 26°. Calm and misty. Anders Balto, with three sleek deer, started at 7 a. m. for St. Michael with Mr. Dunlap and the mail. There is little snow on the ground, but enough to make the trip. The superintendent and assistant walked down to Unalaklik and intend to spend the night.

October 28: 12°. Snowed and blew with great violence this afternoon. Those who went to Unalaklik returned this evening.

October 29: 32°. Calm; snowed in the evening.

October 30: 25°. Snowed during the night. Twenty-three sled deer were brought in from the herd. The herders report that the North River was open and they had to swim the deer over it. It is questionable whether it is advisable to start on our expedition to Synrook and Cape Prince of Wales as soon as we have been planning.

October 31: 20°. Cloudy in the morning, with an east wind blowing. The pulkas were packed to-day for the trip north.

November 1: 5°. Calm and still. Last night is the coldest night we have had so far this winter.

November 2: 14°. Wind from the east, accompanied fine drifting snow. Four of the Laplanders who are going to Cape Prince of Wales, and several others who are to help them divide the herd, started for the herd.

November 3: 4°. Clear and still. Thermometer falling. Temperature 11 p. m. —8°. This is the first time it has been below zero this winter.

November 4: —6°. Clear and still. Wind rose from the east about 10 a. m. and gradually increased to a gale by evening.

November 5: 11°. Strong east wind. The overland mail from St. Michael is now overdue, and probably delayed by stormy weather. Mail arrived this evening, but will not leave till the 7th.

November 6: 8°. Wind has subsided a little, but is still blowing pretty strong. Dr. Gambell and one of the Laplanders started for Cape Prince of Wales this morning. They will go to Egowick, where they will pick up the men and deer to be taken north.

November 7: 5°. Light east wind. Mr. Dunlap, the mail carrier, left this morning for Nulato with the mail. Alfred Hermanson went with him with 5 deer, 3 pulkas, and 1 sled.

November 8: 17°. Cloudy, wind from the east.

November 9: 22°. Cloudy, wind from the southeast. Cleared up during the day.

November 10: 17°. Clear, with very little wind.

November 11: 11°. Clear, wind from southeast. The men who were helping divide the herd returned last night. Received note from Dr. Gambell, dated November 8, stating that he left the herd on that date and had selected from it 88 male, 108 female, and 63 fawns to take to Cape Prince of Wales and that Ole Bahr and Johan Tornensis were going as far as Norton Bay to look up a deer.

November 12: 8°. Cloudy, with a strong east wind blowing.

November 13: 14°. Cloudy, with a strong wind same as yesterday.

November 14: 15°. Clear and still.

November 15: 4°. Clear and still.

November 16: 3°. Cloudy, with strong east wind.

November 17: 13°. Clear and still. Ole Bahr returned this evening.

November 18: 18°. Cloudy, with light wind from southeast. A lone miner passed this morning, pulling his own sled. He came from Nulato and is bound for Nome. Roof of storehouse fixed this morning; damaged by the wind stripping off some of the tar paper.

November 19: 17°. Cloudy; snowed during the night. The overland mail arrived from Nulato at 4.50 p. m. They report deep snow on the portage. They were five days from Nulato to here. Alfred Hermanson returned with the deer. The mail was carried by two mail carriers, one carrying the October mail with a dog team and the other the November with reindeer.

November 20: 18°. Cloudy. The October mail left this morning.

November 21: 12°. Clear and still. The November mail started this morning with fresh reindeer. Per Anderson was sent to look after the deer.

November 22: 8°. Clear and still. Seven sleds from the Yukon passed this morning. The rations were distributed.

November 23: 14°. The assistant superintendent, Alfred, and Ole Bahr went to Unalaklik after some sleds and provisions and returned this evening. Three miners from the Yukon passed, pulling their sleds.

November 24: 15°. Strong wind from the east. Mr. Quist, Miss Peterson, and Miss Alice came from the mission at Unalaklik, with a dog team, to visit the station.

November 25: 25°. Very little wind. Our visitors left this morning. Wind gradually rose to a gale by 1 p. m. Johan Tornensis came in from the herd this evening.

November 26: 23°. Clear and calm. A beautiful Sunday.

November 27: 20°. Cloudy; wind from the east.

November 28: 18°. Clear, with light east wind.

November 29: 17°. Clear, with light east wind.

November 30: 17°. Cloudy; light east wind. The assistant superintendent took Thanksgiving dinner at the mission to-day.

December 1: 13°. Clear; strong wind from the east.

December 2: 10°. Clear, with strong east wind. The assistant

superintendent and one of the Laplanders went to Unalaklik and returned this afternoon. Per Anderson arrived from St. Michael.

December 3: 9°. Clear and still. Light snow during the night.

December 4: 22°. Cloudy and still. The overland mail from St. Michael arrived at noon. Commenced to snow at 8 p. m.

December 5: 22°. Strong east wind, with drifting snow. The mail left for Nulato this morning.

December 6: 21°. Cloudy and still, with light snow falling. Captain Hanson and Mr. Menges, of the Alaska Commercial Company, at St. Michael, passed here on their way to Nulato. Mr. Menges is on his way to the States via Dawson.

December 7: 18°. Cloudy and calm.

December 8: 13°. East wind, accompanied with snow. Snowed all day.

December 9: 7°. Snowing; snowed all night; no wind. Cleared off in afternoon and much colder.

December 10: -14°. Clear and calm. This is the second time it has been below zero this winter, and is as fine a day as can be had in Alaska. The assistant superintendent sent down to Unalaklik.

December 11: 0°. A regular blizzard is raging. The wind is from the east and is the strongest it has been this winter. All the snow that fell the last few days is in the air again, to be deposited in gulches and low places.

December 12: 8°. The wind has abated considerably, but is still pretty strong. About 50 Yukon Indians, with about 30 sleds and from 4 to 7 dogs to each sled, passed this morning. They are bound for Unalaklik on a trading expedition. The assistant superintendent returned this morning. The first team from Cape Nome this season arrived at Unalaklik yesterday. They passed Dr. Gambell and reindeer about 40 miles this side of Nome City, and said he would reach Nome about November 29.

December 13: 16°. Cloudy; light wind from the east.

December 14: 32°. Warm south wind. Mr. Sherzer, Alfred, and Johan Tornensis left for a short trip up North River with deer. Snowed all day.

December 15: 10°. Wind from the east; snowing a little.

December 16: 0°. The Yukon Indians passed again, returning home.

December 17: -10°. Clear, with light east wind.

December 18: -15°. Strong east wind.

December 19: -20°. Cloudy and calm. Mr. Sherzer and men returned this evening. The mail from Nulato arrived this evening at 8 p. m.

December 20: -26°. Clear and calm. Three men from the Yukon came and stopped at the station this morning.

December 21: -26°. Clouded, with light east wind. The mail left

for St. Michael this morning; also the miners. Two men with special mail for the States, from Cape Nome, passed this afternoon. Several Laplanders were started hauling firewood to the superintendent's house from across the river.

December 22: -38° . Clear and calm. Temperature falling; 11 a. m., -40° . The sun was visible for three hours and a half to-day. Temperature this evening, -43° .

December 23: -38° . Clear and calm. Nils Bals, Per Persanger, and Per Larsen Anti returned from Cape Nome this afternoon. Received note from Dr. Gambell, dated Synrock, December 2, stating that he would leave on the 4th for Cape Prince of Wales. Some of the Lapp women washed the lower floor of the superintendent's house. Rations were given to Per Persanger and Per Larsen Anti.

December 24: -18° . Clear and calm. The assistant superintendent left to spend Christmas at the mission.

December 25: -26° . Clear and calm; beautiful Christmas weather. All work at the station stopped to-day.

December 26: -8° . Clear, with wind from the east. The assistant superintendent returned to-day. Some of the Lapp girls came to the superintendent's house to help get things ready for a Christmas entertainment for the station people.

December 27: -8° . Clear, with strong wind from the east. Getting things ready for the Christmas gathering.

December 28: 0° . Clear and calm. Deer were sent down to Unalaklik for Mr. Quist, Miss Peterson, Miss Omegitchake, and Stephen, who arrived at 2 p. m. In the afternoon they dressed a Christmas tree for us, and in the evening all the station people and the Eskimos living near here assembled in the superintendent's house, where they were entertained with songs, music, and talks by Mr. Quist and Stephen; after which candy, nuts, figs, and prunes were distributed among them, and all seemed to enjoy themselves very much.

December 29: -11° . Clear and calm. Our visitors were taken for a short ride up the river this morning, and after a light lunch returned to Unalaklik. They were very much pleased with their deer ride and enjoyed it very much.

December 30: 0° . Cloudy, and trying to snow.

December 31: -5° . Clear, with light east wind. The assistant superintendent went to Unalaklik to spend New Year's.

January 1: 0° . Clear and calm. Everyone taking New Year quietly.

January 2: 6° . Clear, with light east wind. Mr. Sherzer returned this afternoon.

January 3: 1° . Clear, with light east wind. The mail arrived at 12 noon, and left for Nulato at 3 p. m. Dr. Gambell returned this evening from Cape Prince of Wales. He was eleven days traveling from there here and seven days from Cape Nome. This is the best

time that has been made between Cape Nome and here this winter, and is very fast for the trail as it is at present.

January 4: -3° . Clear and calm. The weather is beautiful.

January 5: -8° . Clear and calm. Dr. Gambell made a trip to Unalaklik and back to-day. Aslak Gaup is hauling moss to the station.

January 6: -2° . Clear and calm. Johan Tornensis, Isak Bango, and Ole Pulk came in from the herd this evening.

January 7: -9° . Clear and calm. Mr. Sherzer and Mikkel Sara visited the herd. Three miners on their way to Nome stopped here for the night.

January 8: -6° . Clear, with light wind from the east. Wind increased to a gale by evening. Rations were issued for the remainder of the month.

January 9: -4° . Clear, with a strong east wind.

January 10: 2° . Snowing and blowing, with a strong east wind.

January 11: 6° . Snowing and blowing the same as yesterday. Four men passed bound for Nome and had dinner here. Dr. Gambell visited the herd for the first time since his return. The deer are in fair condition and in a good moss locality.

January 12: -3° . Clear, with a light east wind. Dr. Gambell made a trip to Unalaklik and return in afternoon.

January 13: -9° . Clear and calm. The school children had a candy pulling in the superintendent's house this evening, and all seemed to enjoy themselves.

January 14: -26° . Clear and calm. The herders came in this afternoon.

January 15: -21° . Clear and calm. Deer were sent to Unalaklik this morning for Mr. Quist, who arrived at noon. All the station men assembled in the superintendent's house in the afternoon to talk over signing new contracts. The overland mail arrived at 5 p. m., bringing the first mail from the outside. Dr. Gambell and Mr. Sherzer each received a letter; they were dated in September.

January 16: -21° . Clear and calm. Mr. Quist and Mr. Dunlop, mail carrier, left this morning. Several natives passed on their way up the river. Two natives with a dog team came at 11 p. m. for Dr. Gambell, saying there was a native very sick at Unalaklik. The doctor went with them at once.

January 17: -30° . Clear and calm. The doctor returned this afternoon. Some of the Lapp women scrubbed the lower floor of the superintendent's house.

January 18: -32° . Clear and calm.

January 19: -25° . Clear and calm. The doctor visited his patient at Unalaklik. Six Yukon Indians passed to-day and brought the doctor a letter from the mission at Nulato. Two prospectors came up from Unalaklik and returned this afternoon.

January 20: -40° . Clear and calm.

January 21: -38° . Clear and calm. The assistant superintendent visited Unalaklik.

January 22: -36° . Cloudy and trying to snow, with light west wind. A sled passed going up the river in the afternoon. An inventory of the Government goods is being taken.

January 23: -26° . Cloudy and calm in the morning; cleared off in afternoon. Two men stopped this evening on their way to the Yukon.

January 24: -27° . Clear and calm. The two men continued their journey this morning. Three Laplanders were sent to St. Michael this morning on business. Two Indians passed this afternoon on their way to the Yukon.

January 25: -27° . Clear, wind from the east, which increased to a gale this evening.

January 26: -6° . Cloudy, with gale from the east.

January 27: 3° . Cloudy, with east wind. Two natives with a dog team visited the station. Started to snow at noon. The superintendent and assistant went to Unalaklik. Five Norwegians arrived from Cape Nome this afternoon.

January 28: 12° . Cloudy, strong east wind; accompanied by snow. The superintendent and assistant returned in the afternoon.

January 29: 20° . Cloudy, with light east wind. The men returned from St. Michael last night. One sled passed for the Yukon this morning. Commenced snowing at 10 a. m. and continued all day.

January 30: 29° . Cloudy and calm. A Yukon Indian passed, bound for Nulato. The Laplanders' contracts with the Government having expired, contracts were entered into with the number required to do the work here.

January 31: 21° . Clear and calm.

February 1: 18° . Clear, with a strong east wind. Dr. Gambell and Ole Bahr left for Unoctolik in the morning with some provisions for a destitute family of natives.

February 2: 16° . Cloudy; wind from the east. Snowed a little. In morning Stephen passed, going up the river.

February 3: 10° . Cloudy, with a strong east wind. Tried hard to snow all day. Stephen passed on his return to Unalaklik.

February 4: 14° . Cloudy, with a gale from the east. Alfred left for Unalaklik early this morning to bring Mr. Quist and Miss Peterson up. Ellen Sara and Per Spein were married in the afternoon. Mr. Quist performed the marriage ceremony and Nils Klemetson played the wedding march on the school bell. Miss Peterson and Mr. Quist returned in the evening to Unalaklik. Mr. Knickerbocker, of St. Michael, arrived in the evening.

February 5: 18° . Overcast and calm. Light snow during the night. Mr. Knickerbocker left this morning for the Yukon, where he is going to take the census around Anvik. The overland mail arrived at 11 a. m. and left at 2 p. m. Dr. Gambell returned in the afternoon.

February 6: 18° . Cloudy; wind from the east. Dr. Gambell left

for St. Michael in morning on business. Mr. Foster and friend arrived from Cape Nome in the evening.

February 7: 18°. Cloudy, with a strong east wind. Rations were issued to-day.

February 8: 20°. Cloudy, with wind from the east. Mr. Foster and friend left in the morning for Unalaklik.

February 9: 16°. Calm, cloudy, and snowing. Stopped snowing about noon. Dr. Gambell returned in the evening.

February 10: 13°. Cloudy and trying to snow. About an inch fell during the night. Two men passed from the Yukon in the morning. A man came up from Unalaklik and returned in the evening.

February 11: 29°. Overcast and calm. Dr. Gambell went to Unalaklik and returned to-day. Johan Tornensis came in from the herd in the afternoon. Temperature, 1 p. m., 33°.

February 12: 30°. Cloudy. Rev. F. J. Quist, of the Swedish mission at Unalaklik, came up and united in marriage two of the Laplanders. The assistant superintendent, Mr. S. Newman Sherzer, accompanied by one Laplander, was sent up to examine the logs on the other side of the Shaktolik, as I will send men up to build a summer house if suitable timber is found.

February 13: 28°. Cloudy, with strong east wind.

February 14: 28°. Clear in the morning, with east wind still blowing. Four men were sent to construct a summer house on the point where the deer will be driven this spring. The mail did not arrive to bring us any valentines this year—we expect it in a few days. The days are fine and the weather almost as mild as Iowa weather at the same season of the year. In the lower part of the river the ice is covered with water.

February 15: 26°. Bright and clear, with the barometer indicating fair weather. Light breeze from up the river. Stephen Ivanhoff passed the station this morning.

February 16: 16°. Fine weather.

February 17: 6°. Clear, with wind still from the east. Mr. Kinney, the census enumerator, arrived to-day and took the census at this place.

February 18: 2°. Good weather. Mr. Kinney went on up the river to the two Eskimo villages to take the census.

February 19: 4°. The mail arrived at 9.30 a. m., bringing September, October, and some November mail from the outside. It was gladly welcomed. There were six pouches of letter matter. Mr. Corbuseer, the mail carrier, left for Unalaklik at 2.15 p. m. He states that the roads were very bad all the way from Tanana, and for that reason the mail was delayed, this month. Two dog teams from the Yukon passed on their way to the mining districts. The six Norwegians who have been stopping here for the last three weeks left on their return to Cape Nome. Mr. Stanley came up from Ungwaktolik

to see about having some provisions freighted from St. Michael. Arrangements were made, and the men will leave in a few days with deer and sleds.

February 20: 0°. Clear, with east wind. Mr. George Kinney, the census enumerator, came down the river to-day. Sleds are being fixed for an early departure to St. Michael to-morrow.

February 21: -8°. Clear and bright. Thawed some at noon. Mr. Bush, of Nulato, called at the station on his way to Nome, via St. Michael. The superintendent left at noon to oversee the erection of the house at the summer feeding grounds. Two Laplanders with 14 deer left for St. Michael at 1 p. m. for the purpose of freighting goods to Ungwaktolik. Dr. Chase, formerly of St. Michael, passed the station en route to Nome.

February 22: -10°. Clear. Windy.

February 23: 2°. Cloudy. East wind.

February 24: 12°. Cloudy, with snow in the evening. The Doctor returned, bringing one of the Laplanders with him.

February 25: 12°. Clear.

February 26: -4°. Clear, with east wind. An odd genius arrived at 7 this evening. Says he is from Dawson. Walked all the way and started January 9, 1900. Reports that Dawson burned on January 9; that the war is over; that the Vice-President is dead, and that England is at war with the Boers and is being worsted in the engagements.

February 27: 4°. Clear, with east wind. Our visitor left this morning for Shatolik. Six Dawson sleds passed to-day. A young man by the name of Betts was bringing his wife through. They are bound for Nome. The sleds sent to St. Michael reached Unalaklik to-day and will continue on their way to Ungwaktolik to-morrow. It was found that the storehouse at Unalaklik had been broken into and provisions taken; no clew can be found to the guilty parties.

February 28: 14°. Clear, with wind from the east. Two men pulling their sleds passed the station this forenoon. Nils Bals is being sent with flooring, tar paper, nails, etc., to the new house upon the summer feeding grounds.

March 1: 2°. Clear, still day; thawed some at noon. It has been the finest day we have had this winter. The superintendent visited the herd and reports that the deer are in a good condition. There having been but little snow, the deer have had no trouble in getting moss, and all of them are fat and ready for the spring weather. None have died during the last seven weeks. Some prospectors reached the station en route for Nome this evening.

March 2: -4°. Clear, with east wind. The superintendent went to Unalaklik and received word that the mail was to be carried by the station to Nome. He returned and had deer made ready for an early start in the morning.

March 3: 2°. Clear, with east wind. The mail arrived, and the superintendent started with Nome mail. In the evening he reached Shatolik and engaged Mr. S. Newman Sherzer to act as mail carrier. Three deer were sent in charge of Aslap Gaup.

March 4: 8°. Clear, with prevailing wind. Superintendent returned in the evening, having made arrangements with Mr. Sherzer, and started on the mail. Lars Larsen Hatta, who started from Point Barrow October 14 with 317 deer, reached Cape Prince of Wales on about January 15, 1900, with 261 deer. Three deer were used in coming to the station, and the remainder, 258, were turned over to Dunnak at Port Clarence. At Nome Hatta was taken sick, where he remained until February 26, when he started for the station, which he reached to-day. Dr. Gambell returned to-day.

March 5: 10°. Some of the Laplanders are breaking deer to-day. The men who freighted goods to Ungwaktolik returned last evening.

March 6: 12°. Clear, with east wind. Barometer is indicating another change in the weather.

March 7: 10°. Clear, strong, east wind. Ten teams from Dawson passed the station this morning. Two parties with a dog team claim to have started from Dawson on the 9th of February. Nils Bals returned from Nucleet this evening.

March 8: -4°. A great number of dog teams came down the river to-day en route to Nome.

March 9: -10°. Clear and bright, but the barometer is indicating a storm.

March 10: -14°. East wind blowing, but no storm. Clear and bright. A bicycler passed through this morning from Dawson. Mrs. J. E. Crane, of Chicago, Mrs. Charles E. Hastings, of Detroit, Mrs. W. H. Bergman, of Seattle, Mrs. W. B. Hastings, of Toledo, and Miss Peterson, Mr. Bellows, and Mr. and Mrs. Ivanoff, of Unalaklik, visited at the superintendent's house to-day. They came up from Unalaklik with deer, all of them being expert enough in handling the lines to drive their own deer. It is laughable to have some of them give their experience. The mail is looked for to-morrow.

March 11: -6°. The barometer still says storm, but it remains clear and bright.

March 12: -0°. Clear and bright. The Yukon mail reached the station this evening. The postmaster was all night assorting the 223 pounds of letter mail.

March 13: 2°. Dr. Gambell started with the Nome mail, as Mr. Sherzer had not yet returned. Mr. Dunlop left the same day for St. Michael. Began blizzarding in the afternoon.

March 14: 12°. Storming and blowing with snow most of the day.

March 15: 2°. Cloudy.

March 16: 18°. Cloudy. Mr. Sherzer arrived with the mail from Nome. They passed the outgoing mail on Norton Sound.

March 17: 36°. Overcast and trying to rain. A number of teams passed through from the Yukon. The mail arrived from St. Michael this afternoon and went up the river this evening. Two miners stopped for the night. Nils Klemetsen returned from St. Michael.

March 18: 36°. Clear and calm. The snow is fast disappearing from the mountains. The two miners left this morning, and Mr. Sherzer left for Unalaklik.

March 19: 35°. Clear with strong south wind. Mr. Sherzer returned from Unalaklik. A number of Eskimos visited the station. More miners passed from the Yukon. The river is covered with pools of water and the snow in exposed places is all gone. A miner came up from Unalaklik for his mail and remained over night.

March 20: 30°. Clear and calm. The miner left this morning. More teams passed from the Yukon. The temperature in the sun for the last few days has, at noon, been up to 63°, and if this weather continues the mosquitoes will soon be around. Two miners stopped here this morning.

March 21: 23°. Overcast and calm. The men left this morning. More travelers from the Yukon. One woman passed on her way to Nome.

March 22: 14°. Clear and calm. More travelers from the Yukon.

March 23: 30°. Light breeze from the east. A number of sleds passed from the Yukon. One woman passed this morning. Per Spein was sent to meet the mail from the Yukon.

March 24: 18°. Partially overcast and calm. The Yukoners are still coming. The mail is expected this evening.

March 25: 10°. Overcast, light wind from the west. Mr. Kimball, of St. Michael, arrived this morning and will help with the mails when it arrives. Dr. Gambell arrived from Nome with the mail. He made the round trip from Eaton to Nome in thirteen days, the fastest time ever made with the deer.

March 26: 2°. Partially overcast and calm. More travelers from the Yukon. Two men stopped here this evening.

March 27: 2°. Partially overcast, with light breeze from the west. Light snow fell during the night. Mail arrived this forenoon and left for St. Michael and Nome a little after dinner. Another bicyclist came through from Dawson to-day. Dog teams are passing all the time.

March 28: 0°. Fine snow this morning. Miners en route to Nome state that provisions are scarce on the trail from Dawson, flour at Nulato being \$14 per sack.

March 29: 0°. Clear and quiet to-day. The superintendent walked down to Unalaklik to-day and returned in the evening.

March 30: -2°. Clear and calm. Provisions were given out to be hauled to the Nucleet pasture grounds for April, May, and June. Mrs. Hiller and her little boy of 7 years and infant of 11 months came over

the portage from Nulato and reached the station to-day. They intend to go to Nome in a day or two. They report Mr. Prevost on the portage, with a horse for draft animal, en route for Nome.

March 31: -4° . Clear, with barometer indicating a storm. Mr. and Mrs. Johnson arrived this evening and will remain at the station until morning. Travelers recently from Dawson bring news from the outside as late as February 14.

April 1: 0° . West wind and cloudy. Quiet at the station with the exception of the constant string of Dawson travelers passing by. April fool's day does not exist in Alaska, as the realities are too real to fool with.

April 2: -10° . Mr. and Mrs. Johnson and Mrs. Hiller and family left for Nome this morning. Rev. J. L. Prevost, of the St. James Mission at Tanana, reached here with his horse. It is the first horse that has passed down the river, and was looked at in wonder by the natives. Rev. Prevost remained at the station visiting the superintendent until afternoon, when he went to Unalaklik, where he expected to find the rest of the party with the horse. The mail from St. Michael arrived in the evening.

April 3: -5° . Wind still from the west. Deer were sent with Dunlop as far as the Sugar Loaf Mountain to carry the mail.

April 4: -10° . Calm. To-day has been the star day for Dawsonites. Probably 30 dog teams passed during the day. Two women were among the travelers.

April 5: -5° . Little snow. Mr. Bush, of Nulato, passed the station en route to Nome. The superintendent visited Unalaklik to-day—returned in the afternoon—for the Kotzebue Sound mail at the office. Reports that the Government storehouse at Unalaklik has been broken into again, but can find no clue to the offenders. This is the second time the house has been broken into, and although a reward of \$50 has been offered it brings no results.

April 6: -10° . Calm and clear. A good many of the goods at Unalaklik were turned over to Mr. Quist to-day and the storehouse made more secure.

April 7: -8° . Clear. Sergeant Rupp and Mr. Wilson, of St. Michael, arrived this evening. A party from Tanana stopped over night in the main building.

April 8: -10° . Stormy all day. Mr. Sherzer arrived from Nome with the mail, having been gone from the station eleven and one-half days. It has become milder this evening.

April 9: 32° . Cloudy, with a little sleet and rain. Sergeant Rupp and Mr. Wilson left for St. Michael to-day. Rev. Karl Hendrickson, of Golovin Bay, and Rev. F. Julius Quist and Miss Petersen, of Unalaklik, visited at the station during the afternoon. Three women have passed the station, presumably from Dawson and en route for Nome, all in company with travelers. The mercury reached 39° . Water is on the river.

April 10: 42°. Cloudy.

April 11: 40°. Clear. Ole Bahr returned from the herd at Nucleet and reported that the deer were safely taken to the summer feeding grounds. The mail from the Yukon was expected to-day, but did not arrive.

April 12: 32°. Clear. To-day, Friday, Saturday, Sunday, and Monday are observed as holy days by the Lutheran Norwegians and Laplanders at the station. A few travelers are going down the river with water-soaked feet. The natives near the station are preparing to go to the mountains for squirrels. The mail from the Yukon arrived to-day. Several inches of water on the river.

April 13: 40°. Clear in the forenoon and cloudy in the afternoon. Mr. Sherzer left for Nome at 1 p. m. with the mail. Water is running over the ice on the river. Five men from the Yukon are staying over night at the station. Good Friday to-day. Two horses from Dawson passed to-day; left for Dawson the 2d of March.

April 14: 30°. Clear. Melting all day. A few teams passed the station, also a bicycler wheeling through the water. He carries a cyclometer, and gives the distance from Koltag to Nulato as $34\frac{1}{2}$ miles; from Koltag to the Sugar-loaf Mountain, 47 miles; from the mountain to the station, 31 miles; from the station to the Eskimo village, 7 miles; from the station to Seroskt, $11\frac{1}{2}$ miles.

April 15: 38°. Cloudy. East wind.

April 16: 35°. Cloudy, with snow flurries during the day. River between here and Unalaklik is almost impassable, the water at the mouth of the North River being 2 feet deep over the ice.

April 17: 34°. Warm and clear in the forenoon. Barometer indicates a storm. Clouded up in the evening and began snowing. Mercury dropped from 40° to 28°. Dunlop arrived with the St. Michael mail this evening. Reported that he made the distance from St. Michael to Unalaklik with deer in twelve hours, traveling ten hours out of the twelve.

April 18: 18°. Stormy. Dunlop left with the mail. Charles and Herbert Palmer, brothers of Mrs. Alice Palmer Henderson, reached the station this evening, having left Seattle on the overland route February 11, 1900; they will remain over night with the superintendent. Has snowed all day.

April 19: Sun came out and took most of the snow away. Snow flurries during the day.

April 20: 14°. Has been snowing lightly most of the day. A number of teams passed to-day. A colored gentleman from Eagle states that we are receiving mail by the way of Valdes. One letter dated as late as January 10 reached the station in the mail of April 12. We have rumors that a telegraph line is being started this way from Valdes.

April 21: 11°. Snowed part of the day. Destitute miner called for food and blankets, as he had lost them in the river. Alice, Tatpan,

and his wife visited the station to-day. Some of the squirrel hunters were in from the mountains. The superintendent was called to Unalaklik on professional business.

April 22: 12°. Stormy. Lars Latson Anti died this evening.

April 23: 10°. West wind. Clear most of the day. Word was received from Per Larsen Anti that two deer had broken loose from him while waiting the return of the Yukon mail, and that he had not yet been able to find them. Men will be sent up to look for them if he is not able to find them soon.

April 24: 18°. East wind. Snow part of the day. The superintendent having heard that whisky was being distilled at Alookuk, went up to investigate, but found nothing to justify the report.

April 25: 30°. Cloudy. Mr. Sherzer arrived at 8 a. m. with the Nome mail. States that the trail is good, and that he had a fall at Solomon River which resulted in a dislocation at the shoulder joint of the right arm. Traveled into Nome with the dislocation. Was absent from the station eleven and one-half days. F. G. Kimball came up from Unalaklik with a letter from Dunlop, the mail carrier.

April 26: 30°. Cloudy. Rev. Mr. Quist and Mr. Frank M. Lang came up from Unalaklik this afternoon. Rev. Mr. Quist returned in the evening, and Mr. Lang remains over night.

April 27: 23°. Cloudy. Mr. Lang and Mr. Sherzer walked to Unalaklik to-day. Mr. Sherzer and Mr. Bellows, agent for the Alaska Commercial Company, came up with a dog team in the evening. The mail which has been expected for two days has not arrived.

April 28: 24°. Bright and clear. Nellaginrok returned last evening from visiting his wife on the mountains. The first goose of the season was seen winging his way northward to-day; the first last year was seen on May 7; so if we can count on their appearance we will have an earlier spring by over a week.

April 29: 24°. Cloudy.

April 30: 30°. Warm and bright. At noon 52°. Four men were sent out to find one of the loose sled deer, as an Eskimo brought us word that tracks had been seen at the foot of Mount Leora. They returned later and said that they had found where he had crossed over the river and was headed for the deer herd, but could not track him more on account of the lack of snow. The Yukon mail arrived and both the Nome and St. Michael mails left for their destinations at 6 p. m. Mail as late as February 6, 1900, reached the station. This, in all probability, is the last mail which will reach the station over the portage.

May 1: 40°. Strong east wind blowing. Two more men were in the hunt for the deer to-day, but found no trace of them.

May 2: 34°. Cloudy all day with rain in the afternoon. The ice on the river is again covered with running water.

May 3: 35°. Cloudy.

May 4: 40°. Cloudy. Sawing lumber and building boats is the order of the day.

May 5: 40°. Cloudy. Temperature at noon 50°. Two months' provisions were given out to-day that the books might be balanced.

May 6: 24°. Cloudy. The first robin of the year was heard this morning. Mr. Dunlop arrived from St. Michael with the mail. Three deer were packed in the evening with the mail and provisions and left to assist Mr. Dunlop over the portage.

May 7: 20°. Cloudy, with a strong west wind.

May 8: 32°. Cloudy.

May 9: 35°. Cloudy.

May 10: 38°. Cloudy. Superintendent went over to Unalaklik this forenoon.

May 11: 40°. Bright day. The ice in the river broke to-day.

May 12: 45°. Bright. The men who went with Dunlop to the Sugar Loaf Mountain returned this morning. They found one of the deer that has been lost. An Eskimo found the other and reported at the station. Two men went out and brought it in.

May 13: 40°. Bright. The river is full of floating ice. Three men and one woman reached the station to-night. They were packing and going upon the tundra.

May 14: 45°. Bright. Aukou, Dunlop's native, passed the station on a raft last night. The people who were packing went on to Unalaklik. Nils Klemetsen returned from Nome with the mail this afternoon.

May 15: 47°. Rained part of the day. Dr. Gambell brought in two wild geese and an arctic hare this morning.

May 16: 47°. The men who were sent to Unalaklik for provisions returned this afternoon.

May 17: 47°. Bright. The deer which have been used in carrying the last mails, not being needed longer, are being sent out to-day to the main herd at Nucleet. The superintendent will go with the men as they take the deer to the herd, as it is necessary to inspect the herd before making a final report to the Department. The following will be a diary of the trip to and from Nucleet:

May 18: Yesterday we reached Unalaklik in the evening, having in our whole company Dr. Gambell, Nils and Mikkel Sara, Alfred Hermansen, and the eight deer. Our blankets and provisions for the round trip are packed on three deer, while we walk. We took dinner at Egavik. All the natives are out in their tents sealing. From Egavik we took to the mountains. Passed the steamboat house at 7 this morning.

May 19: After eating an early breakfast of coffee, hard-tack, and cold meat, we broke camp and passed down off the mountains to the beach. Here we reached a sealing camp, when some needed repairing of boots was done. Shaktolik was passed at 6 o'clock in the even-

ing, and the river reached at about 8. We did not get over till noon, as natives with kyaks had to be secured to carry us across. Another chilly night, with little sleep.

May 20: Reached the provision camp at 9.30 a. m. The superintendent left for the herd at 10 a. m., and reached it in the afternoon, after wading streams, some of them almost waist deep. Found the deer doing well, with a large percentage of young calves. Two deer which had been on the mountains all winter returned to the herd since its arrival on the summer feeding grounds. Remained at the herder's tent for the rest of the day.

May 21: Dr. Gambell and Nellarook left for the extreme portion of Cape Denbigh this morning for the purpose of examining into the case of a supposed suicide. Reached the dead man's camp before dinner, made a careful examination of everything pertaining to the case, buried the man on the beach. In the afternoon returned to the provision camp. The superintendent started in the evening for home.

May 22: Reached the sealing camp on this side of the Shaktolik River at 3 a. m., where I slept for a few hours. Had tea, and walked over the mountains to the steamboat house; stopped for a few hours, and then started on toward Unalaklik. Had to build a raft to cross the Egavik River.

May 23: Reached Unalaklik this morning, and remained the rest of the day. This visit of inspection has been a walk of about 120 miles.

*

May 24: Came up to the station.

May 25: 38°. Bright, with strong west wind. Ten salmon trout caught to-day.

May 26: 29°. Cloudy, with snow in the evening.

May 27: 28°. Cloudy and snowing. Alfred and Nils Sara returned from the herd to-day.

May 28: 28°. Snowed most of the day. Nils Bals and John Eira returned from Unalaklik, where they spent Sunday. One of the men cut his hand so that it needed to be sewed.

May 29: 30°. Four inches of snow this morning on the level; disappeared during the day. Ten salmon trout were caught by the men.

May 30: 30°. Bright. West wind.

May 31: 52°. Beautiful day. East wind. Martin Jacobsen came up from the herd; also another native.

June 1: 54°. Bright. East wind.

June 2: 50°. Cloudy. West wind. Stephen and David came up from Unalaklik this evening. Seven miners passing over the trail from Kaltag came down the river this evening. They state that the trail is something terrible. They were in a famished condition when they reached the station.

June 3: 60°. Bright. Colder in the evening. The prospectors who came down the river left for Unalaklik this evening.

June 4: 50°. Cloudy. Strong wind. Two miners passed up the river prospecting. Two of the Lapp families left on their way to Nome. They expect to remain at Unalaklik for a few days. Twenty of the mission people with Mr. Bellows, the Alaska Commercial Company's trader, came up from Unalaklik this afternoon for an outing. They will remain overnight.

June 5: 40°. Clear in the forenoon, with clouds in the evening. The people all returned to Unalaklik this afternoon after a couple of days' enjoyment.

June 6: 40°. Cloudy, with a strong south wind; occasional showers during the day. The sailboat is being put in order to-day.

June 7: 32°. Snowing and raining, with a west wind, and very bad weather for the young deer, as they are in danger of being chilled to death. The barometer is indicating a change, which is looked forward to.

June 8: 35°. Sun shone in the morning; cloudy in the afternoon. The station clothes are being washed. An inventory of the station goods in the storehouse is being made.

June 9: 37°. At 7 p. m., temperature 32°. Cloudy, with mist and snow all day.

June 10: 40°. Bright. The superintendent went to Unalaklik this morning to attend services.

June 11: 39°. Cloudy, with mist. The Laplander who took the superintendent to Unalaklik returned to-day, while the superintendent remained to make an inventory of the goods at Unalaklik.

June 13: 35°. Cloudy. Dr. Gambell walked up from Unalaklik this morning to make ready for a trip to St. Michael. He left soon after dinner in the white boat, taking with him four Laplanders. Raining this afternoon.

June 14: 42°. Two miners passing over the Kaltag trail passed the station to-day.

June 15: 41°. Bright, with light wind from the west.

June 16: 44°. Cloudy, with rain in the afternoon. The superintendent reached the station from St. Michael this noon and left at 4 o'clock for Nueleet. Martin and Petuk accompanied him that they might take the place of the Lapps at the herd during their stay at the station, while awaiting the arrival of Dr. Jackson on his annual trip.

June 17: 38°. Cloudy.

June 18: 38°. Cloudy. Rain in the afternoon.

June 19: 42°. Bright and clear in the forenoon with northwest wind. Raining and storming the evening with northwest wind. Ole Olsen Bahr, the foreman of the station, went to Unalaklik this morning.

June 20: 44°. Strong northwest wind. Sun shining most of the day. Dr. Gambell, with the Lapp herders, arrived at the station this morning.

June 21: 40°. Windy and cloudy. Station boat taken from the

river and overturned for repairs. Aukin and another Eskimo came up to their houses this evening.

June 22: 50°. Bright. The books are being made ready for the annual settlement. Dr. Gambell received a call hastening him to Unalaklik.

June 23: 55°. Part of last night was spent in amputating the arm of a miner who had shot himself while hunting ducks. The *Bear* dropped anchor near the village at 1 p. m. The wounded man was placed on her and taken to St. Michael. Dr. Jackson, after a short stay at the mission, left with Rev. Quist and the superintendent for the station.

June 24: 56°. Bright all day. Dr. Jackson preached to the Laplanders in the afternoon.

June 25: 58°. Bright. Business was finished, and Dr. Jackson, Rev. Quist, and superintendent left in the evening to meet the *Bear*.

June 26: 64°. Bright. The *Bear* put in an appearance about midnight, much to the disappointment of those who had had no sleep for several nights; the boats were manned and barter goods from the storehouse were immediately sent out to her. Johan Tornensis and wife came down and took passage to Port Clarence, where they take charge of a herd of deer. The *Bear* steamed away at noon. The superintendent after vaccinating the mission people returned to Eaton.

June 27: 64°. Cloudy. The superintendent is sick in bed.

June 28: 50°. Cloudy.

June 29: 50°. Foggy.

June 30: 65°. Few clouds. Temperature 11 p. m. 50°. Preparations were made to send men to Nucleet.

EMPLOYMENT OF S. NEWMAN SHERZER.

[See page 11.]

EATON REINDEER STATION, ALASKA,

October 1, 1899.

SIR: This is to state that I have this day employed Mr. S. Newman Sherzer to act as my assistant at Eaton Reindeer Station, at a salary of \$50 and provisions per month. Furthermore, it is agreed that he will remain in the employ of the Government, acting as my assistant, until I see fit to release him, providing that the release is not later than the 15th of May, 1900.

Respectfully,

FRANCIS H. GAMBELL, M. D.,
Superintendent Eaton Reindeer Station.

Dr. SHELDON JACKSON, D. D.,
General Agent of Education in Alaska.

DR. GAMBELL'S TRIP TO CAPE PRINCE OF WALES.

[See page 14.]

EATON REINDEER STATION, ALASKA,

November 6, 1899.

DEAR SIR: I received your book, with the accounts and the instructions as to the men employed and the ones to be retained for the coming year. I will do what I can to follow out your instructions.

I have ordered deer to be taken from the herd to the number of 260; these deer to be delivered to Mr. W. T. Lopp, according to your order. Captain Jarvis informed me that he had landed 18 after the date of your order, so I take the privilege of deducting that number from the original 277. I am dressed and ready to start on the trip, accompanied by five Laplanders. I anticipate a long and hard as well as cold trip.

Do not expect me to fill the position on St. Lawrence Island next year. If you have no more work for me to do, I will be satisfied to return home in July, 1900.

Respectfully, yours,

FRANCIS H. GAMBELL.

Dr. SHELDON JACKSON, D. D.,

Washington, D. C.

DR. GAMBELL'S REPORT OF TRIP TO CAPE PRINCE OF WALES AND SYNROCK.

[Page 15.]

EATON REINDEER STATION, ALASKA,

January 4, 1900.

DEAR SIR: It gives me pleasure to make the following report upon our expedition to and from Cape Prince of Wales via Synrook: On the 8th of November, 1899, I left the herd of deer with 109 males, 108 females, and 63 fawns; at Golovin Bay were added 33 males, 8 females, and 3 fawns (which were deer left in the charge of Per Larsen Anti), 2 station sled deer, Moses' deer (females, 35; males, 5; fawns, 25), missions loan returned (males, 31; female, 67), stations share of increase (sled deer, 12; males, 7; females, 16; calves, 39). At Synrook were added 42 deer found in Charlie Antisarlook's care; at Port Clarence, 5 Siberian deer brought over last summer and 18 station sled deer, making in all 628 deer which passed through my hands. The following were removed at the several places named: On account of lameness 4 were sent back to the Government herd the first day out; on the second day out 1 became injured and could not travel, so had to be killed; 1 was left at Golovin Bay, as it was sick and could not travel; 1 more had to be killed on account of the foot disease. At Synrook I delivered to Charley 328 and left 1 too lame to travel. At Port

Clarence I left the 5 Siberian deer and 8 sled deer in Dunnak's care and 2 sled deer in Towtuk's care. At Cape Prince of Wales I left Mr. Lopp 258 deer and retained 18 for my trip home. One deer died the last day before reaching home. It having become paralyzed in its hinder parts, was being hauled home and died on the way.

Actual number removed from the Government herd, 259.

The expense account is as follows:

Account of station with F. H. Gambell.

Date.		Cr.	Dr.
Nov. 7	To guide.....		\$2.50
20	To labor.....		.25
21	To sewing.....		2.00
21	To provisions.....		1.50
21	To baking.....		1.50
21	To note book.....		.25
23	To sewing.....		.25
30	To dinner.....		.75
	By transportation.....	\$31.50	
	By labor.....	5.00	
	To provisions.....		4.20
Dec. 18	By tea.....	5.00	
	To mittens.....		1.50
19	To provisions.....		2.00
23	To paper.....		5.00
24	To baking, etc.....		5.50
	To medicine and boots.....		5.00
		41.50	32.20
		32.20	
	To credit balance.....	9.30	

As to the time required in performing the work assigned us, I can assure you that it was much shorter than I was led to believe it would be before I began the journey. We had to go around Norton Bay, spend three days in cutting our way over the mountains, build a corral at Golovin Bay and lasso and count every deer in the herd, divide the herd again at Synrook, get needed deer at Port Clarence, go over the mountains to Cape Prince of Wales, and home again, all of which was accomplished in less than two months. The work, I think, has been well done at little expense, and though a cold trip no suffering was experienced.

As to the herds which I visited I will report elsewhere.

Very respectfully, your obedient servant,

FRANCIS H. GAMBELL.

Dr. SHELDON JACKSON, D. D.,

General Agent of Education in Alaska, Washington, D. C.

DR. GAMBELL'S RETURN TO EATON STATION.

EATON REINDEER STATION, ALASKA,

January 5, 1900.

DEAR SIR: I have this day returned from my trip to Cape Prince of Wales, and will state that everything undertaken so far has been very successful and has been done in order and under my especial

supervision. I will report to you in full. I have already sent Charley Antisarlook's receipt for the 328 deer and a partial report of my trip.

Respectfully, yours,

FRANCIS H. GAMBELL, M. D.

Dr. SHELDON JACKSON, D. D.,

General Agent of Education in Alaska,

Washington, D. C

LAPLANDERS ASK AN INCREASE OF SALARY.

[Page 12.]

EATON REINDEER STATION, ALASKA,

January 15, 1900.

DEAR SIR: Have had a talk with the Laplanders in regard to their services for the coming year. None of them will contract for \$500 and furnish their own provisions and clothing. They think their clothing will cost them an exorbitant price. Two of them are willing to remain providing they can get \$500 with free provisions and clothing. One is willing to remain, providing he can get free clothing and food, for \$400 a year. He is the best man we have.

The others want \$1,200 a year. I could not enter into any contract with them at such a price, so continued the present contract with three of the men for six months and expect to wait until you come. They all claim that they have contracted so that after the expiration of the two years they can work for six months longer, and for that work return home—that work paying for their return trip. I would not listen to anything like that, and told them that I did not read their contract in that way. All refuse to go to the Yukon. I do not know what to do with the Catholics when they come for their deer, as I understand that they intend to do.

The first mail from the outside reached here to-day. There was nothing later than September.

Respectfully, your servant,

FRANCIS H. GAMBELL, M. D.

Dr. SHELDON JACKSON, D. D.,

General Agent of Education in Alaska,

Washington, D. C.

EATON REINDEER STATION, ALASKA,

January 31, 1900.

DEAR SIR: There is general dissatisfaction at the station among the Laplanders. None of them will contract for another year's service in Government work. I have contracted with four men on the same terms as their old contract for the coming six months, that the herd might be attended to until your arrival, at least.

Their names are as follows: Johan Isaksen Tornensis, Ole Olsen Bahr, Per Mathisen Spein, Alfred Hermansen.

Respectfully,

FRANCIS H. GAMBELL, M. D.

Dr. SHELDON JACKSON, D. D.,

General Agent of Education in Alaska,

Washington, D. C.

MAIL SERVICE.

[Page 24.]

UNALAKLIK, ALASKA, *March 25, 1900.*

DEAR SIR: I have an opportunity to send you word via Katmai with Norman R. Smith, United States deputy surveyor of Alaska, and I wish to state a few facts.

We received our first mail from the outside the 18th of January, 1900; since then we have received it once a month until the middle of March, when we received our first bimonthly mail. The station, according to your instructions, has furnished deer to carry the mail to Nome. We have already made two trips—the first and middle of the present month. We are expecting to receive the outside mail to-morrow, when it will be sent immediately to Nome and St. Michael by deer.

I have put the mail in the hands of Mr. S. Newman Sherzer, as I could not attend to it with my other duties. Mr. Elliott stated that he could not attend to it as you suggested. The deer are doing well, both with the mail and generally. We made the trip to and from Nome, a distance of 480 miles, in twelve days this last time.

As far as I can find out there will be but 16 or 18 Laplanders return to Norway; the rest wish to go mining.

United States Deputy Marshal Lee has removed Mr. Chard from his position at Port Clarence and placed a man of poor repute in charge of the buildings. I wrote to Chard and told him that he was still in charge and would be held responsible for what was done to and with the buildings regardless of the actions of Lee.

Personally I am well and have been busy most of the time.

Hundreds are coming down from Dawson and passing the station on their way to Nome. It is reported that the river steamers will land their people at Kaltag and send them over to Norton Bay on to Nome, a wrong idea altogether.

Trusting that my work during the winter will prove satisfactory, I remain

Your obedient servant,

FRANCIS H. GAMBELL, M. D.,
Superintendent Eaton Reindeer Station.

Dr. SHELDON JACKSON, D. D.,

Washington, D. C.

[Page 24.]

EATON REINDEER STATION, *May 6, 1900.*

SIR: In regard to the station and its work, I beg leave to state that everything is in a satisfactory condition. The deer have done remarkably well in transporting the mail from the station to Nome, and also to St. Michael. When they are given proper attention they do the work well. We have made four complete trips and on the 30th ultimo started the fifth mail to Nome with them. Providing the coast ice will permit it, upon the return of the present deer out, I will send the sixth mail to Nome. On account of the fact that Mr. Sherzer was a man whom I could trust, I put him wholly in charge of the mail, upon Mr. Elliott's refusing to have anything to do with it this year. He has given entire satisfaction, and I can not say anything but the best for him. The shortest time on the round trip was made in eleven and one-half days from the time of leaving the station until his return.

The mail across the portage will be carried in part by packing the deer on this trip, as there is no snow and the rivers are practically open.

The winter has been very mild and very pleasant. Personally speaking, I have been well and have enjoyed my work, save for the dissatisfaction prevalent over which I had no control, neither was the cause of. Upon my release from my present work I want to spend a month or so with Mr. Lopp, at Cape Prince of Wales.

Trusting that everything may be found in a satisfactory state upon your arrival, and that the work may be intrusted to unselfish workers, I can not help but then say that the outcome for which you have looked will be realized without delay.

I remain, very respectfully, your servant,

FRANCIS H. GAMBELL.

Dr. SHELDON JACKSON,

General Agent of Education in Alaska.

The parties who have signified their intention of returning home are the following: Aslak Bals, wife and two children; Aslak Gaup, wife and child, infant; Anders Utzi; Johan Nango, wife and child.

HERDERS FOR SPECIAL DUTY.

EATON REINDEER STATION, ALASKA,

July 24, 1900.

DEAR SIR: Received your letter of the 6th instant. Am very sorry that you have not been able to visit here again before this. I have every reason to believe that I will have the mail both to Nome and to Kotzebue to carry this winter. I want for sure Nils Klemetsen on the route, and Isak Hatta, if he will come. I have already written to them both to that effect.

Nils Sara has promised me to go to St. Lawrence Island, and I have him making pulkas, snowshoes, etc., for the island. Ole Bahr and Per Spein will remain with the station herd. Anders Biti has promised to go to Kotzebue, providing he gets a suitable companion. Nils Balto, who is to go to the Kuskoquim, wants his son Per to go with him in place of Bango. Think that that would be best, as Per is almost a man.

Biti says he will go to Kotzebue with Bango. I think it would be best to have them both taken to Port Clarence and start with the Kotzebue herd from there, taking the part of the herd which is in charge of Rev. Brevig. I will need all the sled deer in the herd at this place for the mail. Am well.

Respectfully, yours,

FRANCIS H. GAMBELL.

Dr. SHELDON JACKSON, D. D.,
General Agent of Education in Alaska.

MESSRS. BREVIG, WILLARD, AND LINDSETH APPOINTED TO
ALASKA.

SEATTLE, WASH., *May 2, 1900.*

MY DEAR MR. GAMBELL: Your several letters and reports, via Yukon and Katmai, have just arrived at Washington and been forwarded to me. We most heartily approve of your management and congratulate you on the success of your trip to Cape Prince of Wales. I notice what you say with regard to the Lapps, and am glad that you have been able to keep four of them until I come. I will probably arrange to give them \$500 next year and rations, and perhaps clothing; at any rate, will make a satisfactory arrangement with them.

Mr. W. T. Doty is on his way back to St. Lawrence Island for another year, and I will also endeavor to retain Dr. Lerrigo there. I expect to put a herd of reindeer on the island this summer with two Lapps in charge, one of whom will be the Norwegian, Ole Krogh, whom I have just engaged. I have arranged with a Mr. Lindseth, a Norwegian, to be your assistant another year, and as Mr. Kjellmann is too sick to return to Alaska at present, I would consider it a personal favor if you will consent to remain in charge of the reindeer herds. In addition to Mr. Lindseth, I am sending up Fritz Willard. He was born in Alaska. His mother is the authoress of the book *Kindashon's Wife*.

I am sending up such supplies as I can get hold of, but if, when I meet you and you look over the list, other things are needed, we will either get them at St. Michael or send down to the States for them to come up on the last ships.

I will be up on the *Bear*, and hope to see you at the station in July. I will multiply this letter and send it by various boats in order that it may reach you at the earliest possible moment.

Very truly, yours,

SHELDON JACKSON.

F. H. GAMBELL, M. D.,

Eaton, via St. Michael, Alaska.

Mr. Willard is to keep books, issue rations, cook, go on errands, or anything else that will help you.

BUILDING TELEGRAPH LINE.

NORTH AMERICAN TRANSPORTATION AND TRADING COMPANY

HOTEL HEALY, ST. MICHAEL, ALASKA,

August 16, 1900.

DEAR SIR: I came into St. Michael yesterday morning in our small whaleboat for the goods which were sent up from Seattle on the *Santa Anna*.

If it will meet with your favor, I would request that a small safe be brought up for the station's use next summer, as in my absence I have no secure place in which to deposit any funds which may be on hand.

Major Greene writes me that it is his intention to begin the construction of the telegraph line across the portage from the mouth of the Unalaklik River to the Yukon at Kaltag by the 1st of September.

Everything at the station is moving along nicely. A few more of the natives are dying, but many of them are getting better and are at work again.

Rev. Karlson arrived at Unalaklik on the morning of the 11th instant. He and his friends had been on a prospecting trip away up to the head waters of the Buckland River.

Mr. Quist has received his supplies. I intend to visit the herd next week, and can then make a report on its condition.

Very respectfully, your servant,

FRANCIS H. GAMBELL, M. D.

Dr. SHELDON JACKSON, D. D.,

General Agent of Education in Alaska,

Washington, D. C.

CONDITION OF HERD AT EATON STATION.

ST. MICHAEL, ALASKA, *August 30, 1900.*

DEAR SIR: I have personally inspected the herd and find it in a better condition than it has ever been known before. There are none of them sick nor lame, and are very fine and slick looking. The

fawns are almost as large as their mothers. I think that I have solved the foot-disease question, and will write to you in full upon the subject when I can command the time.

My men are doing nicely and I have had such willing services rendered. Nellagoroak, the native herder, was given five female deer; also one unbroken sled deer, to which he was to give his attention this winter.

I have also supervised the castration of the deer this fall, selecting the best male deer for breeding purposes. I am sorry to state that in the past male deer have been allowed to run with the herd without regard to the retention of the best. They were retaining the poorest males with the hope that they would develop more fully and make good sled deer with strong necks. That is true. But is it best to lower the general average of the whole herd that a few deer may be benefited by running at large? This thing has been practiced during the past years.

There is one more thing that gives me anxiety. Miners are killing the deer, although the strictest watch has been placed upon them. I but recently learned of a party that killed two. I have enough evidence to warrant me in swearing out a warrant for their arrest. I am hastening to Nome with this warrant to meet them upon their arrival. They will be found and brought to justice. I will see that it is done. I will keep you informed as to my action.

The burning of the moss is seriously and will for fifty years seriously retard the movements of the deer along the coast, as it takes fifty years for the moss to again cover burned ground. Something should be done to stop the burning of the moss grounds.

I have heard nothing from the Kuskokwim, and do not know whether they will come for their herd or not.

Trusting that everything will be done aright, I remain,

Yours, in service,

FRANCIS H. GAMBELL.

Dr. SHELDON JACKSON, D. D.,

General Agent of Education in Alaska,

Washington, D. C.

REINDEER KILLED.

[Page 18.]

NOME, ALASKA, *September 7, 1900.*

DEAR SIR: A few days ago I received a letter from you, written at Dutch Harbor, in regard to the accounts of certain former employees at the station. At St. Michael I answered the same; but fearing that it might be delayed in some way, and knowing that you are anxious to receive a speedy reply, I write from here again in answer to the same.

The salaries of Johan I. Tornensis, Per M. Spein, Ole O. Bahr, and Alfred Hermansen are figured for nineteen months, namely, from July 1, 1898, to January 31, 1900. You appointed Ole O. Bahr foreman the 1st of September, 1899, with an advance of \$2.66 $\frac{2}{3}$ per month. Lars L. Hatta was credited for an extra month (the month of February, 1900), as he did not reach the station from the north until the 1st of March.

When I reach the station I will write to you in full in regard to Anders K. Biti's account, as I can not remember the amount coming to him.

I had a very stormy trip coming from St. Michael here. I have not been able to have the chief instigators in the killing of the deer taken yet, but it will not be long, I think, before we can find them.

I trust that my actions in this case will meet with your approval. Before they can be convicted there will be a large expense account, which I am at the present bearing.

I have been able to see Mary Antisarlook since coming here and learn that the deer are being given close attention. Both Charlie and his two brothers have died, and the deer are being cared for by the Eskimo boys. I wish that there was some responsible white man to watch the herd this winter against the companies and miners.

The *Bear* has been here and gone to Port Clarence. I understand that they found the herds at Point Barrow and Point Hope doing well. I also learn that Mr. Lopp intends to divide his herd of deer and put the division in the care of his herders—a most excellent plan, I think, as he must have upward of a thousand deer now.

Trusting that everything will be found satisfactory, I am,

Obediently, yours,

FRANCIS H. GAMBELL.

Dr. SHELDON JACKSON, D. D.,

General Agent of Education in Alaska,

Washington, D. C.

HOTEL HEALY, ST. MICHAEL, ALASKA,

September 10, 1900.

DEAR SIR: I returned from Nome to St. Michael last night. I left the case and papers with Marshal Vawters, as I could not remain longer to trace the men up. I think that they will soon be taken.

I received your letter leaving Mr. Englestadt's and Mr. Hendricks's case in my hands.

I have not heard from Mr. Hendricks yet in regard to the bill, and will write again. I have the contract for carrying the mail to Kotzebue this winter, starting January 1, 1901, and March 1, 1901, from Unalaklik, the new post-office.

I saw Inspector Clum. He promised to see that I was reimbursed for the additional work imposed upon me as postmaster in separating

the mails for St. Michael, Nome, Port Clarence, Cape Prince of Wales, Golovin Bay, Kotzebue, etc. I think that he will attend to it.

Will you kindly see that Mr. Sherzer's mother receives his wages for carrying the mail? He is afraid that nothing will be done. I have received the shipment and also bills for the order given the Seattle Hardware Company. Everything is all right, and I am well.

Yours, obediently,

FRANCIS H. GAMBELL.

Dr. SHELDON JACKSON, D. D.,

*General Agent of Education in Alaska,
Washington, D. C.*

REINDEER WANTED AT NULATO.

[Page 21.]

HOTEL HEALY, ST. MICHAEL, ALASKA,

September 13, 1900.

DEAR SIR: The mission at Nulato (Roman Catholic) is very desirous of getting deer this winter. If the Kuskokwim people do not call after a reasonable time, does it not meet with your approval to supply them with a herd of 100?

Personally I would think that it would be advisable, as they are willing this year to meet the requirements of the contract.

Very respectfully, yours,

FRANCIS H. GAMBELL.

Dr. SHELDON JACKSON, D. D.,

*General Agent of Education in Alaska,
Bureau of Education, Washington, D. C.*

P. S.—A contract has been ordered signed with me to carry letter mail twice to Kotzebue Sound. Mail to leave Eaton on or about January 1 and March 1, 1901.

F. H. G.

MEDICAL REPORT ON HOOF DISEASE, BY DR. GAMBELL.

EATON REINDEER STATION, ALASKA,

September 15, 1900.

DEAR SIR: I take pleasure in complying with your request to furnish you with a report upon the disease commonly known as "the foot disease of the reindeer." What I write is gathered from personal observation of this animal during my stay of two and a half years at the Government headquarters, where the main herd is kept. I have never heard nor read of any theory as to the cause of the disease being advanced; nevertheless I feel confident that I am right, and that time will demonstrate the correctness of my diagnosis. While I have never made a study of the diseases of the lower animals, I feel that my familiarity with disease in the human body gives me

a right to express myself upon this disease also, since I have given it my especial attention in the hopes of finding out its cause and a practical course of treatment.

In giving the symptoms of the disease I am sorry that I can not enter into the subject in detail and give the pathological changes and the results as to the invasion and kinds of bacteria. The instruments for such research are not at my command, and I have to content myself with giving but the clinical history.

The first symptom noticed is lameness, after which we notice a swelling, generally in close proximity to the hoof, although at times the knee, flank, hip, back, or jaw is the seat of disease. After the inflammation has run its course there is a breaking down of the tissue at the point affected, accompanied by a profuse discharge of sanguino-purulent pus.

If the disease remains localized and there is good drainage, there may be recovery, but should it become systemic, the excretive organs become affected. The prognosis then is never good. The deer may be healthy and strong and remain so until death, but where there is a running sore lasting for months, with lameness, he shows signs of emaciation and weakness.

As to the cause of this disease, the reasons given are many, but I can not think that it is due to climatic conditions nor to the fact that the deer are kept too long in one locality, but I do believe that it is due to a lack of proper nourishment. According to the popular belief, the deer need nothing but the white moss for food. This is not the case. During one-third of the year they live wholly upon grass and green plants, leaving the white moss entirely alone. There is, however, a peculiarity about the deer which is not characteristic of the cattle of the States. During the months of March, April, May, and June both the bucks and does cast their large, branching antlers, and nature begins immediately to renew them. It is wonderful to see the rapid growth of the horns. It is also wonderful to think of the material required and furnished to produce such an outgrowth. Surely it can not be wholly assimilated from the food ingested, for that would be too great a task for the digestive organs. It appears that nature is not relying upon the crude material for the accomplishing of her great task. Simultaneous with the dropping of the antlers the ramifications of the blood vessels of the bones become ingested and every part of the osseous system is bathed in blood, presumably seeking for material for the new antlers. If a deer is killed at this time, the marrow and bones will be a deep red instead of the pinkish color commonly seen. Accordingly, it would seem that the horns are grown at the expense of the bony framework. It would naturally follow that if the bones are depleted of their nourishment, there is a loss of vitality. Thus the power of resistance is reduced, and the deer is rendered

subject to the invasion of the pyogenic or pus-producing germ, just as the lungs are subject to the invasion of the germs of tuberculosis when their vitality is not great.

Therefore my belief is that the disease originates in the bones, generally near the articulation; that the inflammation is due to the presence of the pus-producing germs which find lodgment in the devitalized bones; that gradually the pus "works" to the surface, causing an open sore; that at this time the trouble is localized, but later may become systemic.

I have made the following observations, which have led me to this conclusion and strengthened my belief. During the summer and fall of 1898 the deer were kept to the south and southeast of the station, on ground free from all calcium salts. During that time many were troubled with this disease, and in the winter there were quite a number brought in with broken legs. The bones of these animals, upon being slightly boiled, were in such a condition that they could be broken and bitten in two with the teeth. They seemed to lack the hardness characteristic of the bones of the ox and the deer when in a healthy condition. I could not help but come to the conclusion that they had never recovered from the drain made upon them in supplying the needed material for their antlers.

Or, in other words, nature had no opportunity given her to replace the material which she had borrowed from the bones for the growth of the horns, and so the whole system had to suffer. I have also noticed during the spring and summer a craving for foods other than moss and grass. The horns which they have cast are eaten until there are but stubs remaining; bones are eaten, and the deer have been known to choke upon them; fish bones are eaten with great avidity; human urine is fought over; the blue mussel shells, so plentiful along the beach of the sea, are not only nibbled at, but are scooped up by the greedy deer when found in piles which have been made by the waves. When they find a dry whitish soil it is consumed as though they were eating salt; even deer tethered out with ropes will eat their fastenings in lieu of something better; often I have noticed them paw down for the roots of plants. These things I have learned from personal observation, and will vouch for the truth of every statement which I have made. As to the treatment of the disease I have nothing more to say than that I would take preventive measures to keep the animal free from this trouble. I would place them near the seashore and have them cast their horns upon the feeding ground if possible. I also would try to find them soil rich in salts of lime if I could.

During the past spring and summer I have had the Government herd upon Cape Denbigh—an ideal feeding ground—and I have the first case of foot trouble to find since putting them there. I shall not take time to write concerning the season of year when the animal is most usually affected and as to the location of the disease upon its

body, although I would very much like to use these facts as additional evidence to prove that my theory is true.

Trusting that those better equipped than I am may be able to examine more fully into the question, and that their research may be carried further and more knowledge gained, I remain,

Most truly, yours,

FRANCIS H. GAMBELL, M. D.

Dr. SHELDON JACKSON, D. D.,

General Agent of Education in Alaska,

Washington, D. C.

EATON REINDEER STATION, ALASKA,

September 27, 1900.

DEAR SIR: I am pleased to be able to acknowledge the receipt of the Code of Alaska and three copies of the Report on the Introduction of Domestic Reindeer into Alaska. The first I was glad to have as a reference, and the last I have read with a great deal of interest. I am sure that no one can help but see how the deer are multiplying if they will give their attention for a short time to the contents of the report. Facts are stubborn things to get around. This year you are receiving the support of the people of this locality more than ever before.

I send with this mail a specimen each of four species of reindeer moss, which I trust will reach you in good condition. It has been commonly reported at Nome and elsewhere that I and two natives were drowned. For fear that you might get the same report in some way, I give you proof that it is not so.

Respectfully, your servant,

FRANCIS H. GAMBELL.

Dr. SHELDON JACKSON, D. D.,

General Agent of Education in Alaska.

HENDRICKS & VAN NOTE ASK FOR REINDEER, HARNESS, AND
SLEDS FOR CARRYING MAIL.

[Page 24.]

WEARE, ALASKA, *September 13, 1899.*

DEAR SIR: This will introduce to you Mr. A. E. Dunlop, who will attempt to put through the first trip or two of the mail. He will call on you for some pack deer and harnesses, Lapps, etc., and the second trip for some sleds. I hope he may be able to get these things. He is accustomed to traveling in this country, and gave us entire satisfac-

tion last winter on mail route, but the use of the deer will be new to him and all the suggestions you may give him will be gladly accepted.

Yours, truly,

HENDRICKS & VAN NOTE,
By N. V. HENDRICKS.

Dr. F. H. GAMBELL,

Assistant Superintendent Reindeer Station, Eaton, Alaska.

P. S.—Mr. Kjellmann said he would advise you in his letter the men to send along.

N. V. H.

WEARE, ALASKA, *September 13, 1900.*

DEAR SIR: I made arrangements with Mr. Kjellmann at St. Michael to call on you for help in getting our mail route from St. Michael to Weare started by reindeer transportation. Mr. Dunlop, who will hand you a letter of introduction, will attempt the first trip across. Mr. Heymond will make the later trips. We will have to pack the deer on the first and possibly the second trip. Mr. Kjellmann said he would authorize you to help us in any way you could, so if you will kindly take care of the requests such as you feel privileged to, made by Mr. Dunlop or Mr. Heymond, you will greatly oblige us. I have given Mr. George G. Belt power of attorney to act in relation to our herd now at your station, also in the matter of the mail service, so any requests he may make in regard to these matters is fully authorized.

I hope you will have a pleasant winter. I am going to the States for the winter. Should I be in your place this winter, will be happy to give the news to your friends. We are all well at Nulato the last I was there.

With best wishes, very truly, yours,

HENDRICKS & VAN NOTE,
By N. V. HENDRICKS.

Dr. F. H. GAMBELL,

Assistant Superintendent Reindeer Station, Eaton, Alaska.

P. S.—I hope you have not failed to receive Mr. Kjellmann's letter, as it might simplify many things. He had agreed that things we might want from time to time could—that which would be returnable—be returned, and that which would be paid for could be charged to my account, and the amount settled in total in the summer. Having this understanding, we have arranged with our carriers accordingly.

N. V. H.

WEARE, ALASKA, *September 13, 1900.*

DEAR SIR: In pursuance of an understanding with Mr. Kjellmann, whose letter I hope you have received, that we might call on you for the deer, etc., I am going to ask if you will have prepared for us about

15 pack harnesses and other equipments that may be required for taking the mail to Nulato by pack deer. Our carrier leaves St. Michael October 1 with the mail, and will come to your place by boat and from there to Nulato by deer. If you could have things under way so that he might not be delayed so long, we would appreciate it. We want to make a success of the route by using the deer, and in any way you can help us we will be glad of it. Letters further relating to the matter will be handed you by the carriers.

Yours, truly,

N. V. HENDRICKS.

Dr. F. H. GAMBELL,

Assistant Superintendent Reindeer Station, Eaton, Alaska.

REPORT OF REINDEER HERD, GOLOVIN BAY.

[Page 14.]

GOLOVIN BAY, ALASKA, *June 25, 1900.*

DEAR SIR: I inclose a report of the reindeer at the station, but it is impossible for me to give a correct account of the herd as it stands now, because when the deer were divided last fall about 70 of them went away from the herd, and the herders did not say anything to Dr. Gambell about it. I could not go out to the herd at that time because Miss Johnson, Gabriel, and two other boys in the mission laid very sick with typhoid fever, and not before February did I find out the condition that the herd was in. I went out to count them, but as it was too late to lasso the female deer, so could not do it; so we have some more here that belong to the Episcopal mission.

The deer are doing well and a good many of the young have calves, but it has been hard since the old herders left to get any good herders. We are all well now and trying to work. It is a great run of miners here all the time, and it is hard to do any mission work among the natives.

With kind regards, yours, truly,

KARL HENDRICKSON.

Dr. SHELDON JACKSON,

U. S. S. Bear, Nome, Alaska.

Statistics of reindeer herd, Golovin Bay.

GOLOVIN BAY, ALASKA, *June 25, 1900.*

REINDEER ACCOUNT.

Old deer in the herd, about	244
Fawns living	110
Total	354

Belonging to Okitkon:	
Old deer	29
Fawns	20
Belonging to Tatpan:	
Old deer	39
Fawns	25
Three years in service, Constantin:	
Old deer	7
Fawns	5
Three years in service, Toptok:	
Fawns	5
Old deer	8
Belonging to the mission at Golovin, old	78
Belonging to both missions, about	83
Fawns belonging to both	55
Total	354

Three sick deer not counted.

Deer taken out of the Government herd in September, 1899:	
Government deer	98
Moses	65
Episcopal mission, Rev. J. L. Prevost's deer	80
Died, and killed by dogs, etc.	11
Butchered by Okitkon	3
Butchered by Tatpan	2
Total	259

KARL HENDRICKSON.

REPORT OF REINDEER HERD, CAPE PRINCE OF WALES.

[Page 16.]

CAPE PRINCE OF WALES, ALASKA,
July 31, 1900.

DEAR SIR: We hereby submit our annual report for the year ending June 30, 1900.

In July, August, September, and December following our last report 564 deer have been returned to our herd, making a total of 714. Of these, 287 were landed by the U. S. cutters *Bear* and *Thetis*, and the steamer *Albion*, and 260 were driven here from Eaton Station.

Receiving so many new deer has necessarily increased our death rate, for several of the deer delivered were lame, bruised, and diseased. This replacement of loaned deer has also decreased our usual birth rate, because of its reduction of the proportionate number of females. Of our 714 deer only about 295 were females. According to the rate of increase of males and females in former years, this herd should have had at least 425 females in it. Counting this spring's fawns, it now contains only about 415 females.

Out of 259 fawns born, 237 are now living—135 females and 101 males; besides these, 17 fawns (yearlings) gave birth to "stillborn" calves.

During the year 37 deer died from disease and accident—21 males and 16 females—and 30 males were butchered by the herders and by the mission. No diseases not already mentioned in your reports have been observed.

On the strength of an alleged "rich strike" on Mint River in November, we undertook to establish a reindeer express between York and Nome. It was a success as far as the deer were concerned. After making two trips to Nome it had to be abandoned, because there was not sufficient travel and freighting to make it pay.

The winter has been more severe and disagreeable than usual. In October several days of cold winds and rains gave all our herders "bad colds," which resulted in pneumonia with Ke-ok and Kiv-yerz-ruk and kept them from herding more than six weeks. Kiv-yerz-ruk was taken down with typhoid fever in December and required careful nursing for more than two months. We have taken one new apprentice and will add one or two more this summer.

In the present herd the Eskimos own about 460. Next year we are planning to make two herds of it and keep one of them in the Schishmaref Inlet region.

Very truly,

W. T. LOPP,
*Superintendent of the American
Missionary Association Mission.*

Dr. SHELDON JACKSON,

General Agent of Education in Alaska, Washington, D. C.

REPORT OF REINDEER HERD, POINT BARROW.

[Page 17.]

POINT BARROW, *July 25, 1900.*

DEAR SIR: I have the honor to report a very successful year for the deer belonging to the Presbyterian Mission.

The following is the number of deer in the herd at this date:

Males	25
Females	75
	— 100
Fawns	47
	— 47
Total	147

You will notice that the total of adults is the same as that left here last fall, 100. We have had 3 deer die, but 2 were left by the Lapps as unable to make the trip to the straits, and 1 deer was found in a log fox trap about 10 miles south of the winter's headquarters starved, or at least so nearly so that it died the day after being discovered. As our deer counted up all right, we suppose that the fawn of this deer was left in our herd and she left Mr. Marshall to find the fawn.

As we had very fair weather this year during the fawning—much better than any previous year—we saved 83 per cent of the fawns born.

Sincerely, yours,

H. R. MARSH, M. D.

SHELDON JACKSON, D. D.

REPORT FROM ST. LAWRENCE ISLAND.

[Page 17.]

GAMBELL, ALASKA, *July 24, 1900.*

DEAR SIR: I have the honor to submit the following report of the Government school at Gambell, St. Lawrence Island, Alaska, for the year ending June 30, 1900.

Terms.—School was commenced September 10, 1899, the first term lasting until December 22. The second term opened January 2 and continued without intermission until the end of April. Two days were lost on account of the schoolroom stove proving refractory, owing to defective flues and strong east winds, and filling the room with smoke. One day was omitted, following the arrival of the shipwrecked seaman, Mr. Murphy. Total days during which school was held, 152.

The sessions were between the hours of 9 and 12 a. m., with recess of fifteen minutes, and between 1.30 and 3 p. m. These hours were finally adopted after some experimenting and the perusal of my predecessor's experience. For the first few weeks but one session was held, as there was much work to do about the premises in preparing for winter. At times a two-hour session was held in the afternoon, from 1.30 to 3.30, but it was found that the children would not submit to a long period of application. With the medical work and miscellaneous duties which fall to the lot of the teacher my time and strength were so fully occupied as to make it advisable to shorten the session to an hour and a half in the afternoon. Hence the periods above noted were finally decided upon.

The sessions of the school were at times interrupted by incidental experiences, such as the bell being carried away by a strong north-east wind or the chimney pot going by the board. Upon one occasion it was necessary to omit the entire afternoon session in order to attend the native Ahlonga, who was in serious danger from approaching uræmic coma.

After the 1st of April it was increasingly difficult to maintain proper attendance, owing to the amount of spring work in which the children were obliged to assist their parents. During the latter part of April I found it necessary to omit the afternoon session and accomplished as much as possible during three morning hours. This secured a better attendance and more concentrated effort than would otherwise have been the case.

Enrollment and attendance.—The number of pupils between the ages of 4 and 19 enrolled was 72.

	Total attendance.	Number of days.	Average daily attendance.
September.....	324	15	21
October.....	506	22	23
November.....	508	21	24
December.....	410	16	25
January.....	477	21	22
February.....	395	18	22
March.....	512	20	25
April.....	409	19	21
Total yearly attendance.....	3,541	152	23
Average attendance for year.....			23

The attendance was very irregular, as the parents kept their children from school whenever the most trifling work could be found as an excuse, and would not enforce their attendance even when not otherwise engaged, and in many cases the children preferred sleeping or playing to the mental exercise required of them at school. I have constantly urged upon the parents the advantages to their children of an English education, but for the most part it is dealing too much with the future for them to appreciate it. The two chief men, Shaalook and Asoona, form notable exceptions, sending their children whenever it is at all possible. I have often discussed the general irregularity with them, and Shaalook once suggested that if I would give them breakfast every child in the village would come (and about two-thirds of their parents, I have no doubt), this in their minds being a reasonable advantage attendant upon education.

It has been especially difficult to induce the girls to attend, partly on account of shyness and again because the men do not consider it necessary for the women to be deeply learned. They will sometimes come for several consecutive days and get well started on the alphabet or perhaps numbers, and then absent themselves for a month or six weeks, during which time they will succeed in losing all recollection of their educational attainments and calmly pursue the subject again with the same edifying result.

Classes.—The pupils were divided into four classes, A, B, C, and D, studying the following branches:

Class A: English (reading—Second and Third Readers and New Testament; grammar, composition); arithmetic (multiplication, short division, long division, traders' accounts); geography (physical, general, United States); drawing.

Class B: English (reading—First Reader, advanced; composition, writing, picture lessons in conversation); arithmetic (addition, subtraction, multiplication by several figures, short division); geography, Alaskan; drawing.

Class C: English (reading—First Reader; writing, object lessons, conversation); arithmetic (numbers, addition, subtraction, multiplication by one figure); drawing.

Class D (primary): English (object lessons, reading simple words, alphabet, conversation); arithmetic (numbers).

All classes: Vocal music one-fourth to one-half hour; calisthenics.

Ability and progress.—In mental ability the native children seem to compare favorably with those of more civilized countries. Some few are hopelessly dull, but the majority are capable of comprehending and retaining the subjects which engage the attention of white children of similar age. A few are remarkably bright and exhibit capability for mental training to a very considerable extent. The great obstacles in their progress are irregularity in attendance and the lack of the gift of continuity. Their life involves nothing which is calculated to train them for continued mental application. Their work is such as requires physical strength and native acuteness for a little time, after which the strain is relaxed and they lapse into a condition of utter idleness until again required to put forth effort. Consequently their faculties for long-continued mental effort are undeveloped and the children are unable to follow an extended course of work with the facility of those who have come of more civilized stock. Limited by these drawbacks, however, they have during the past year made an appreciable advance in the use of English, in arithmetic, in geography, and in general knowledge.

Discipline.—Precedent had accustomed the children to moderate talking during school hours, and as it did not interfere with the work, the custom was continued. The discipline was upon the whole well maintained and punishment not frequently necessary. Upon a few occasions dismissing the culprit from the schoolroom seemed to produce a sufficient moral effect.

In June, after the school was closed for the year, during my absence from the village, some of the boys broke into the house and committed trifling pilfering, but took nothing of any great value. Upon this occasion I considered it necessary to take a little more vigorous action and administered corporal punishment to the two leaders, after giving them a moral lecture upon the enormity of their misdeed. The parents came to me almost unanimously apologizing for their children, some of them returning the stolen articles, some bringing payment for the things eaten, while others relieved me of the necessity of further action by thrashing their boys themselves.

Medical work.—The sanitary and hygienic (or rather the unsanitary and unhygienic) conditions of the natives of St. Lawrence Island merit the Department's most serious consideration.

The Eskimos are required by the rigors of their natural surroundings to make perhaps a more determined and arduous struggle for existence than any people in the world. Their horizon is limited, their possibilities meager, and their food supply decidedly precarious. Gradually they are proving inadequate to the fight, and if the record of the past two years is to be repeated, the indications are that St. Lawrence Island at least will be depopulated in the course of a generation.

The report of last year shows an epidemic of influenza, occurring

in the months of May and June, with complications of pneumonia, etc., which, together with the deaths occurring during the year, resulted in a death record of 13 persons in a community of little more than 300, and this in spite of the assiduous care and labors of the missionary in charge, Rev. W. F. Doty. The birth record meanwhile was 7, leaving a decrease of 6 in the total population.

I have made careful investigations to ascertain accurately the number of deaths occurring during this year. It may be that one or two babies have died of which I have received no information, for the people account the death of an infant of little moment and soon forget that he has been and is not. After visiting every house in the community and making inquiries as to the number of deaths each had sustained, I find that 23 women, 9 men, and 12 children have died, making a total of 44 deaths resulting from epidemics of measles and influenza and the overturning of a canoe containing 6 persons. The latter were residents of Southwest Cape, and their death leaves but one family at that point. Many of the deaths from sickness occurred subsequent to June 30, but they belong to the death report of the epidemic of influenza which started in June, and are therefore mentioned here, the remarks on vital statistics giving the record of mortality for the fiscal year.

The number of babies born during the past year was 9, which, deducted from the death record, leaves a decrease of 35, making a total decrease, when added to that of the previous year, of 41, more than 12 per cent of the entire community, occurring in the space of two years.

Under the present conditions it is probable that epidemics will continue to occur during the succeeding summers, and a mathematical computation of the lease of life of the village is not difficult.

The last report of the late Mr. V. C. Gambell gives the population of the two villages of Seevookuk and Powoeluk (Southwest Cape) as approximately 365. The census taken by Rev. W. F. Doty in the spring of 1899 shows a population of 334. This has been decreased during the present year by 35, leaving a population of 299.

The natives are not, generally speaking, a healthy people. The exposure incident to their mode of gaining a livelihood, the rigor of the climate, and the unsanitary principles which govern their daily lives contribute to produce numerous disorders which may be mentioned in three classes: (1) Skin diseases, (2) diseases of the respiratory tract, (3) venereal diseases; in addition to which are occasional epidemics.

The filth of their general surroundings is well known, no arrangement whatever being made for the disposal of the bodily excrement. The spaces between the houses are a wilderness of corruption, discarded skin garments of the filthiest nature, bones, rags, the decaying carcasses of dogs, and other masses of animal putrefaction, the odor

of which is most unsavory and the sight enough to sicken all one's æsthetic sensibilities.

Inside the houses the accumulated expectoration of germ-laden sputum has rendered the upper soil most unhealthful, and the germs and grease cleaving to the walls and supports form a happy hunting ground for any sportive bacterium which may feel inclined to propagate his species in undisturbed felicity.

In the living rooms, which are curtained from the main dwelling by heavy reindeer hides, the conditions are even more favorable to the growth of microscopic fauna. The rooms are small, the dimensions being, in width, about 8 feet; in height, 5 feet, and varying from 10 to 15 feet in length. Near the top of the anterior curtain a small hole about 4 inches in diameter is cut, which is alleged by the native sanitarian to be for the purpose of ventilation. Needless to say, it is entirely inadequate, and the seal-oil lamps by which the apartment is lighted and heated keep the temperature at an almost insufferable heat, while the air becomes heavy with the carbon dioxide, organic matter, and moisture thrown off from the lungs of the occupants. When the front curtain is raised clouds of steam issue forth as from a Turkish bath, and to enter the room from the cold of the outer house at times gives one the sense of suffocation. Their beds are reindeer hides, upon which the sputum of a sick person will often fall and dry. With the exception of a loin cloth, they wear no clothes in the living room, which is, perhaps, the reason of the high temperature maintained.

In ordinary health habit makes these conditions by no means insupportable, and if the Messingaman could always remain in good health his house would, perhaps, be a model of comfort and convenience (from a Messinga standpoint), but when he becomes sick, particularly of diseases involving the respiratory tract, and experiences difficulty in breathing, he immediately thrusts his head from under the reindeer curtain to obtain the relatively fresh air of the outer room; consequently his head, neck, and shoulders, frequently his whole chest and even abdomen, are bared to the playful touches of the spring zephyrs which blow through the doorway, the hole in the roof, and cracks in the walls, causing a thousand drafts and counterdrafts. If he happens to have a high fever, this is particularly agreeable to him, and he allows the cooling, sometimes icy, breeze to blow over him. What wonder that his friends and relatives have the melancholy duty of bearing him to the mountain side and laying him to rest with the bones of his fathers! These are the conditions that make pneumonia an almost certainly fatal disease among this people.

The skin diseases are of many kinds, but chiefly appear in the form of superficial spreading erosions about the folds of the skin and the extremities; also papular and pustular eczemas. It has been claimed

by many that these difficulties are entirely of venereal origin, but I am of the opinion that unhygienic living is a larger factor in their etiology.

Their garments are never cleansed, and are hardly susceptible of cleansing, being composed of reindeer hides and the skins of birds; consequently the excretions of the skin are not absorbed, and the glands become obstructed. Associated with this is the fact that they do not consider it necessary to bathe the body, and on the rare occasions when the face and hands receive any such attentions.

Their food, particularly during the winter months, is very largely of a nitrogenous nature, and the excess of waste products resulting therefrom overtaxes the excretory functions of the skin. My observation has been that when the whaling vessels arrived and commenced trading flour and other carbohydrate foods the demand for skin medicines moderated very largely, although it had continued unabated throughout the winter. This would seem to indicate the dietetic origin of the diseases. It should be borne in mind, however, that these remarks are only of a tentative nature, being based upon the limited observation possible during one year. The subject requires much further investigation and experiment before definite conclusions can be arrived at. Of course syphilis does enter to some extent into the causation of the skin diseases, many of the worst cases being entirely traceable thereto, but the contention is that it is not a constant factor.

The skin affections will undoubtedly continue in the present ratio—that is, affecting about 100 per cent of the community—until the people can be induced to adopt habits of comparative cleanliness, and furnished with washable under-garments and sufficient food of a vegetable nature, as flour, beans, oatmeal, etc. It is not proposed that these things be supplied to them gratis, as the spoils of their hunting and the product of their handicraft furnish them with ample means to provide these necessities. The only thing required is the opportunity of disposing of their goods at a reasonable basis of trade.

Respiratory diseases, apart from those accompanying the epidemics, are also exceedingly common. The usual coughs and colds are as common as among white people, or more so. There are occasional cases of pleurisy and severe bronchitis, while tuberculosis follows many of the less dangerous maladies. The former do not, as a rule, prove serious, except in the way of preparing the soil for more fatal disorders. Of the latter no one has died during the year, but there are several cases which must succumb sooner or later.

Venereal diseases.—The island has been fortunate in escaping with very much less of the scourge than is reported in many places upon the coast of the mainland. Many of the people are, however, in the secondary and tertiary stages of the disease, exhibiting skin and eye symptoms with glandular enlargement. A few of the children suffer

from hereditary syphilis, one case in particular manifesting a severe stomatitis, with the Hutchinson teeth and enlarged glands, being greatly benefited by antisiphilietic treatment.

It is probable that my opportunities for investigation have not revealed the full extent of the trouble among the women, but the indications are that the disease is not on the increase.

Concerning the origin of the epidemic of measles which broke out in this community on June 11, all that I have been able to learn is that it was brought by natives from Indian Point (Cape Tchaplín). It is possible that a passing whaler landed the germs at that point, or it may have come from the interior of Siberia. It is very evident that the disease has not visited the village at least within this generation and probably not for even a much longer period, for the entire population was attacked by it, not even the old people being exempt.

The disease was of a very much more malignant type than is usually met with in the States, which may have been an intrinsic characteristic of the epidemic or may have been due to the exposure to which all the patients were subjected while in a fevered condition.

In about half the cases the chilling resulted in a temporary suppression of the eruption and respiratory complications. In some cases the meninges were affected, one patient lying unconscious for two days. The mortality directly ensuing upon this epidemic was not, however, very large, being confined to two babies. The weakness left by the depleting action of the disease, together with the entailed laryngitis, gave to it its serious aspect. Immediately following came the epidemic of influenza, finding in the exhausted systems of the natives, the raw throats and irritated bronchi, a splendid field for operation and fastening upon them with a vigorous hold. During the past month every single individual in the community has suffered from the attack of the epidemic enemy and many have not yet recovered. As usual it was accompanied by many complications, chiefly pneumonia, bronchitis, laryngitis, and entero-colitis. Of the first named there were about 40 severe cases, the major portion of which has proved fatal. Some days I found very little time for anything else than visiting the sick; upon one day every house in the village was visited and over 100 patients prescribed for, about 15 of them being severe cases of pneumonia. Under the existing conditions, however, dispensing medicines to such cases is a mere travesty upon medical practice. No persuasion will induce them to protect their chests and heads. As long as strength remains they will get up and move about the house, and often sit outside upon the ground for hours. On one occasion I found the chief, Assoona, who was suffering from pneumonia, sitting down about halfway to the beach with his two little boys beside him, his strength having utterly given out. In some cases they refuse the medicine because it does not immediately make them strong and well.

The wonder is, not that so many die, but that some live. During the epidemic so far 24 persons have died of pneumonia, being considerably over 50 per cent of the total number of cases, but had they been white persons it is safe to say that the like conditions would have resulted in a mortality of 100 per cent.

The chief difficulty encountered here in the management of pneumonia is, obviously, the construction of their houses, which requires them to suffer great exposure in satisfying the craving for air, which the accompanying dyspnoea entails. In addition to this are lack of proper diet and attention to personal hygiene. Often the patient can get no more suitable food than raw walrus or seal meat, or, at the best, hard pilot bread soaked in warm water, or, by unusual good fortune, coffee, which is not a substance to beguile the waning appetite of a sick person, or to support his flagging energies. Of course he lapses into a worse condition of uncleanness than usual, for his suffering renders him by no means anxious to try such unwonted exercise as bathing, even if he be not physically incapacitated.

While his friends at times feel considerable concern for his safety, their sympathy does not lead them to such extreme lengths as assisting him in the matter. While they make some effort at disposing of the excretions, they do not understand the necessity of great care in this regard, and are particularly careless as to the expectorated matter.

It is hopeless to think of remedying these evils while the patients are left in their present houses. The only remedy which suggests itself is the building of a hospital to which severe cases might be transferred and given the benefit of proper treatment under medical attention and the care of a trained nurse. It seems hardly probable that the limitations of the Department's appropriations could include such a scheme, but to a philanthropically inclined person seeking a channel for the disposal of ready money where it would be sure of producing great good, the opportunity is one pregnant with possibility.

Another fact having a most emphatic bearing upon the subject is the number of vessels plying in these waters which do not carry a physician, and have little or no facility for the treatment and care of persons who may be injured or taken ill during the voyage. To take a case in point: On June 30, the *Progress*, of Vladivostock, Captain Gunderson, dropped anchor off the north shore, with flag at half mast, and sent a boat ashore asking me to come off. Upon the vessel I found a Chinaman who had been accidentally wounded by a loaded rifle which had been hanging upon the side of the companionway. The wound was a very severe one, with extensive laceration, and no one on board understood the proper treatment. The accident had occurred the previous day and the powder and dirt blown into the wound resulted in septic infection. He was brought ashore for treat-

ment, the *Progress* proposing to return for him later. The mission premises are small, and being occupied already by three persons, it was necessary to arrange quarters in the school room for the injured man. I need not enlarge upon the requirements for the treatment of extensive septic wounds with general systemic infection, but certainly the means at hand were by no means of the best, or the most conducive to a quick recovery. The impossibility of thoroughly sterilizing the dressings, the lack of proper instruments for operating the wound, and solutions for cleansing, rendered the treatment far more difficult and protracted than should have been the case.

I have been informed by Captain Tilton, of the steam whaler *Alexander*, that upon two vessels of the whaling fleet deaths have occurred this spring, presumably from the epidemic difficulty which has so devastated the native communities in this region. It is quite possible that a hospital at this point might have prevented such sad casualties. The construction and maintenance of such a hospital need not necessarily involve a large outlay of money. An initial expense of \$5,000 would probably provide a frame building with accommodations for 20 patients, and the appurtenances attaching to hospital work; after which an outlay of about \$5,000 per annum would be sufficient to maintain the establishment.

In addition to the medical work, there is a considerable amount of minor surgery to receive attention; ulcers, boils, carbuncles, and more or less incised and lacerated wounds are the common surgical complaints, the drawing of teeth being a constant requirement. Wounds frequently occur while hunting, sometimes of quite a serious nature. One young man inflicted upon himself, with his hunting knife, a severe wound above the knee, severing a large part of the tendon of the quadriceps extensor muscle. He made rapid recovery, but still walks with a slight limp.

It may be of interest to mention the morphological anomalies which exist among the people. The consanguinity of their marital relations, necessitated by such a limited population, seems to have resulted in a much greater proportion of physical abnormalities than is usual among the peoples of a wider growth.

The community contains several cases of harelip, web-fingers, and congenital strabismus. In the case of one little boy the fingers of the left hand are badly warped and deformed. Epicanthus, the malformation which gives to the Mongolian race the peculiar almond eyes, is common among them, and in many cases much exaggerated.

Order.—The people have preserved fairly good order throughout the entire year. They have displayed no open hostility toward the mission. The better class, including Shoolook and Assoona, with their party, have been quite friendly and have done all in their power to help the work. The party of which Captain Jack was the exponent have been quiescent, only manifesting their ill will by suppressed

growls on occasion of the Sunday services. They apparently consider it advisable not to jeopardize the trading advantages which may accrue to them, fearing also Captain Jack's fate.

Upon the occasion of finding the wreck and the two seamen, the whole village conspired to rob them most abominably, looking upon everything cast up by the sea as their lawful spoil. We succeeded in recovering Mr. Murphy's personal property and some of the effects of the late Mr. Elliott.

Upon the arrival of the whalers they suffered a lapse from their moral rectitude, and about 20 of the men and women became intoxicated, having traded for whisky from the *William Bayliss* or *Karluk*, both of which were in the harbor at the time. The *William Bayliss* came during the night of May 27, and the *Karluk* about 7 o'clock the following morning. About 10 o'clock many of the natives were intoxicated. Some reported the *William Bayliss* as having traded liquor, others the *Karluk*; it is probable that both were guilty of infringements of the law against furnishing natives with intoxicating liquors. They left between 10 and 11 a. m., before I found time to go on board.

Shaalook and Assoona, with others of the better class, refused to trade for whisky, saying that it was "very bad" and that they would accept nothing but food, ammunition, etc. They report that at Indian Point the natives traded for a large amount of whisky, and, becoming frenzied, killed many of their children.

The natives have stolen trifling things from time to time, but I have been able to detect no one in these depredations. The largest theft consisted of about six or eight cans of corned beef. There are some who would be glad of the removal of the school from the island, but the majority quite recognize the many advantages which they gain by its presence and are anxious that it should not be discontinued.

Evangelical work.—Services were held each Sunday at 11 a. m., which the people attended as largely as the schoolroom would admit. After singing and prayer, the Word of God was expounded by the aid of large Sunday-school pictures. Have found it helpful to go over the subject with my interpreter during the week. We have covered the main incidents in the life of Christ and of St. Paul, and have had lessons on the wanderings of the Children of Israel in the wilderness and the history of Israel. The people have not yet acquired a very deep interest in the Scriptures. They listen to the story attentively and appreciatively, but the moral and evangelical therefrom do not seem to please them so well. It is very difficult for them to apprehend and appreciate the atonement by the death of Christ, chiefly because they have no particular feeling of sinfulness. Their lives are swallowed up in "what shall we eat, what shall we drink, and wherewithal shall we be clothed?" The problem of existence is necessarily so constantly before them that they seem to have

no thought left for God and the hereafter. In a vague way they fear Him and tremble, but not as sinners, and so the Cross of Christ is without meaning to them.

That much has been accomplished by the years of preaching and teaching is to my mind indubitable. The morality of the community is much higher than that of the neighboring villages on the Siberian coast, and the stand which the chief men have taken against whisky is a definite fruit of the work.

At times I have held a separate meeting for the children in the afternoon, showing them Bible pictures and telling them little stories. They like this better than the main service, and it is easier to interest them in this way. One feels that the salvation of the community lies in the children; they are so fresh and bright, as compared with their parents, who are trained in the guileful ways of their world, and whom one can not but help suspect of harboring sinister designs.

The people are quite fond of our music, so I occasionally played for them on a weekday evening, making the meeting the occasion of a short service. Some of them resented the introduction of the Bible into the programme, but I told them they were at liberty to retire if they were so disposed.

Have also held a Bible class for the young men during the larger part of the winter. About ten of them can read sufficiently well to render it profitable. We opened with singing and prayer, and then read a portion of the Word, reading the verses consecutively. I explained each verse as it was read, and drew the obvious lessons from it; afterwards we had more music. The boys seemed to enjoy the little meetings.

Food supply.—About the middle of November the natives were threatened with famine. Their summer store had in many cases been exhausted, and the ice not having come they were unable to kill seals. I was able to tide them over the time by trading flour until, on November 27, the ice pack arrived and the sealing season commenced. Of small seals they did not get as many as usual; but, while there was no superabundance, everybody had sufficient food during the remainder of the winter.

When the walrus season commenced they were more fortunate and must have killed altogether about 200. One week in May they killed 90, and during April and May they also secured a great many big seals.

They have, unfortunately, great difficulty in disposing of their boats, wares, etc., in trade. During the spring four whaling vessels have traded at this place to a considerable extent, but the natives still have a quantity of goods undisposed of and have received by no means so much food and ammunition as they will stand in need of. Many of them were sick when the vessels were here, and if the whalers

do not stop on their way out in the fall the people will suffer more in the coming winter than in the past.

I might here recommend that the teacher be allowed to trade with the natives to some extent. During the early fall I held the view that trading was a hindrance to the work, but my experience during the winter has convinced me of the imperative necessity of the teacher furnishing the people with some opportunity for disposing of their goods. Their poverty and the frequent famines do not arise wholly from the lack of marketable property, but because, they are unable to find a market which is adequate to their requirements. The whaling vessels furnish them with an outlet for a considerable quantity of their goods, but they are not sufficient for the demands, and the natives can not depend upon them. Last fall the people had a large amount of goods on hand awaiting the visit of the whalers, but not a single vessel of any description stopped. Had it not been for the remains of the Gambell supplies which I was able to trade with them there would have been considerable suffering from famine.

Concerning the wreck of the Eacrett.—The schooner *Eacrett*, a two-masted vessel of about 30 tons, left Cape Nome on November 3, 1899, with company as follows: Augustus Lear, owner; Captain Johnson, master; Charles Elliott, mate; James Murphy, ——— Smith, and ——— Nichal, bound for San Francisco to return in spring with provisions for a mining camp. She expected to reach her destination in about twenty days, and only sufficient provisions were taken for that time.

After leaving Nome, contrary winds were encountered with severe storms, and she was driven to the west. On account of the heavy weather the captain was unable to take his bearings by the sun, and in endeavoring to weather the eastern end of St. Lawrence Island they were stranded upon the beach about 20 miles east of Cape Nukuliak. The driving snow and the howling of the storm prevented Mr. Murphy, who was at the wheel, from seeing or hearing the breakers until they were almost among them, and his efforts to hold her off were unavailing. She was driven high upon the beach. The catastrophe occurred about 8 p. m. November 6, 1899.

The surf, which was rolling high and breaking over the vessel, caused them to fear that she would go to pieces, and they hastened ashore and waited for the morning. The following day they made the first of many unsuccessful efforts to get her off, but she was too firmly fixed for them to produce any impression upon her. As she was full of water from the breakers dashing over her, they took the sails ashore and made a tent, in which they lived until some time in December, when the vessel had drained and the coming of the ice obviated any danger of her breaking up. Day by day they worked upon the vessel, still hoping to float her, until November 16, when they finally gave up the effort. On the following day Captain John-

son, with Messrs. Elliott and Murphy, started toward Southeast Cape to look for the mission, which they supposed to lie in that direction. The provisions were very low, and they were able to take with them only about enough for five days. Arriving at Southeast Cape they found some old deserted native houses, but no mission, and the food being exhausted, they kept on around the southern shore, hoping to meet with natives. Captain Johnson had heard of the loss of the late Mr. and Mrs. Gambell in the schooner *Jane Grey* and supposed that the island had not been occupied by missionaries since then. After further unsuccessful search they decided to return across the island to the schooner. On November 26, when about two days' journey from the vessel, Captain Johnson, feeling his strength almost exhausted from cold and fasting, instructed his companions to hasten on and send Nichol and Smith to his assistance with food.

They arrived at the vessel thoroughly exhausted, and Nichol and Smith started at once, but found that the captain had been dead for a considerable time, having evidently perished soon after parting with his companions. The body was stiff and the clothes frozen. Either it did not occur to Nichol and Smith to examine the pockets for papers and valuables, or, suffering considerably from the cold themselves, they were unable to get at them.

Mr. Lear had left the vessel alone with a week's provisions a few days before the captain's party set out. He had decided to explore for the mission on his own account. As he did not return and no traces of him were subsequently found, it is evident that he shared Captain Johnson's fate.

The survivors, reduced to four, spent the first three weeks in December in endeavoring to contrive means of escape and hunting for food to eke out their rapidly diminishing larder. At one time they tried to escape in a small boat belonging to the schooner, hoping to reach some inhabited point or be picked up by a passing vessel. They were driven back, however, by the ice before they had gone very far.

At the time seals were in very great abundance all about the schooner, but they were unable to devise any way of capturing them. They poisoned about 16 foxes by placing strychnine upon a piece of meat and leaving the dainty upon the foxes' run. At one time Mr. Murphy saw a large raven pick up the carcass of a fox poisoned in this way in his talons and carry it some considerable distance. It proved too heavy for the bird, however, and Mr. Murphy secured his prey.

On December 24 Smith started for Southwest Cape with the forlorn hope of finding natives. They had quite given up the hope of finding the mission, having adopted the captain's view that the station had been abandoned. Smith did not return, and was undoubtedly overcome by the cold and hunger. It may have been some trace of him which the Southwest Cape natives discovered and of which they brought us news at the station.

On December 26 Murphy found the carcass of an old walrus some distance down the shore, which afforded them a little relief. By January 1 the other food was entirely exhausted and the walrus was again resorted to. From this time until the middle of March, when they were discovered, it formed almost the sole food, and although it had long been dead and smelt most offensively the stress of hunger caused them to devour it eagerly.

They spent the time fishing and hunting, with occasional exploring trips. By this time they had returned to the vessel and slept in their bunks in the cabin. The settling of the vessel had opened wide cracks in the walls and the roof, and it was impossible to keep the place at a comfortable temperature. They were very poorly off for blankets and often the cold prevented them from sleeping, and they lay in their bunks shivering as they listened to the wind moaning through the bare rigging above them and thought of the probable fate in store for them. They suffered also at this time from frost-bites of the feet and hands, not having proper clothes to endure the extreme weather.

February 16 Nichol went out to fish in open water. Night came and he did not return. The following day Murphy went in search of him, but unsuccessfully. Being extremely worn and weak, it is probable that he lost his footing and perished among the drifting floes.

Charles Elliott and James Murphy were now alone and were daily becoming more exhausted and emaciated. They continued to exist upon the walrus, but its rotten appearance and foul smell filled them with growing disgust, until it was with the greatest difficulty that they could force themselves to eat it. On the 14th of March, having eaten nothing for five days, they found themselves too weak to rise from their berths in the schooner and lay there awaiting death. As the morning advanced they heard voices outside the schooner, and very soon Shoolook, one of our natives, appeared. One can scarcely imagine their joy at his arrival.

It was early in January that Shoolook told me of the arrival of the Southwest Cape men with the news that while hunting far to the east they had found a white man's tracks, with the marks of sled runners, also the crumbs of pilot bread in a deserted native house. We had a long talk about it, thinking that prospectors might be wintering upon the island or possibly that a shipwreck might have occurred. I proposed that the next day he and I go in search of the white men, using his dog sleds. It was bitterly cold at the time, and this did not at all meet with his views.

He assured me that I should be unable to stand the journey, and we finally arranged that he should go as soon as the weather permitted, and I furnished him with the things which he would need upon his journey. I expected him to start in a day or two, but he did not display much zeal for the undertaking, and I again spoke to him about the matter. In February I furnished him once more with the

things which he desired for the trip and hoped to get him started the following day, but about this time the natives were very short of food and all efforts were concentrated upon hunting. Finally, upon March 13, he started, with a letter from me to the white men upon the eastern end of the island offering assistance if they were in need. In three days he returned with a note from Mr. Elliott explaining their circumstances. I at once sent clothes and food, with sleds to bring them to the mission.

Messrs. Elliott and Murphy started from the schooner on the morning of March 20, the weather being fair at the time. In a few hours, however, a severe snowstorm arose, with a strong northeast wind, and the temperature fell rapidly. Mr. Murphy was able to walk somewhat, which relieved the dogs, and his sled pushed on, arriving at Raghuk's house, about 15 miles east of the station, about 9 p. m., after a day of extreme hardship.

In spite of his companion's remonstrances, Mr. Elliott had insisted upon eating to repletion when the food arrived, which in his weakened condition produced violent gastro-enteritis, hence he was too weak to walk. As the cold grew more intense he grew perceptibly weaker, and severe vomiting was added to the diarrhea which had been troubling him. During the afternoon he succumbed to the cold and illness combined, and the native Imurrian covered him with snow and pressed hastily forward, joining his companions at Raghuk's house during the night. The following day they completed the journey, arriving about 5 p. m., Mr. Murphy being at the last extremity of weakness and emaciation.

In settling with the natives we found that they had stolen many things belonging to Mr. Murphy and Mr. Elliott. I gathered the chief men into the schoolroom and discussed the matter with them, finally laying down the ultimatum that we would pay them nothing more until they returned every stolen article, and adding that when the United States revenue cutter arrived a thorough investigation would be made and severe retribution follow. Although they had previously denied taking anything, they talked the matter over among themselves and finally sent two young men, who returned with many things, including a gold watch of Mr. Murphy's and a silver watch belonging to Mr. Elliott. There were also some pots which had been given to Shoolook before leaving the vessel. These were returned to him. A razor belonging to Mr. Murphy was now the chief thing missing, and Imurrian claimed that it was among the things upon Mr. Elliott's body. Shoolook said he would go and bring all the papers and things in Mr. Elliott's pockets, and that we might go with him. The days went by, however, and he constantly postponed going upon one excuse or another, and finally, upon May 7, Mr. Murphy being by that time recovered, we hired sleds and dogs and set forth together in search of Mr. Elliott's body, thinking we might also see traces of Mr. Lear or Mr. Smith.

The day was very bright, and we congratulated ourselves upon having such a brilliant accompaniment to our start. Before we returned we had reason to regret it most severely, however.

About 11 o'clock we arrived at Raghuk's house, where we ate lunch and fed the dogs. Further than this the regular trail does not run, and we had to make our own track, endeavoring as nearly as possible to keep the direction by which the party had returned from the wreck. Passing the mountains on the other side of Raghuk's house, we skirted the shore of the great bay until we were very near to Cape Siepermo, when we cut across country a number of miles to the sides of a very high mountain, where the body of Mr. Elliott was supposed to lie. We explored the mountain as thoroughly as possible, but the slope was covered with many feet of snow and we could find no trace of him.

It was now between 7 and 8 p. m. and our dogs, which we found to be very poor specimens, seemed to be very much exhausted. It had been a long day of very intense sunshine upon the glittering snow. Both Mr. Murphy and myself were suffering severely from snow blindness, and we turned to the homeward trail, silently and slowly, for the dogs were very tired, pushing along the shore of the bay. It was about 12 o'clock when we arrived at the mountains behind Raghuk's house. With the night a mist had sprung up, for which we were devoutly thankful. I was taking the lead, as my dogs were the fresher, and being quite unable to open my eyes for even an instant without the most intense pain, I missed the trail and plunged down the mountain side almost on the frozen sea. Mr. Murphy very considerably followed me, and we presented a most interesting tangle of sleds, dogs, and men. However, we succeeded in extricating ourselves and completed the journey to Raghuk's house without further mishap. Here we lay down for a few hours, not to sleep, but to speculate whether our eyes were balls of fire or pincushions.

In the morning we returned home, having been quite unsuccessful. We covered in all about 90 miles. For two days neither of us was adequate to the housework, and it was six days before I could open my eyes even in a darkened room.

On June 1 the *Alaska* arrived, and Mr. Murphy took passage in her for Nome. I have subsequently learned that she was lost within sight of her destination, the passengers and crew, however, reaching land safely.

The following Government property is on hand:

Sixty pounds salt, 1 barrel butter, 2 5-gallon kegs of molasses, one-half sack coffee.

Lumber: 2,500 feet California redwood, 6 by 1; 700 feet California redwood, 9 by 1; 4,000 feet California redwood, 3½ by ¾; 350 feet California redwood, 12 by 2; 2,000 feet pine, 5½ by ¾; 1,280 feet pine, 4 by 2; 400 feet pine, 12 by 1; 700 feet pine, 8 by 2; 80 feet pine, 8 by 8.

Coal: Seven tons (approximately).

Appended hereto is an abstract of my journal for the past year. Trusting the report will meet your approval, I am,

Yours, respectfully,

P. H. J. LERRIGO, M. D.

Dr. SHELDON JACKSON,

General Agent, Washington, D. C.

ABSTRACT OF JOURNAL, GAMBELL, ST. LAWRENCE ISLAND, KEPT
BY P. H. J. LERRIGO, M. D.

September 1, 1899: Arrived per United States revenue cutter *Thetis*, Captain Buhner. Dr. Jackson gave final instructions and vessel left about 5 p. m.

September 2: Saturday. Cloudy, misty, and some rain. Temperature about $56\frac{1}{2}^{\circ}$. Can not keep accurate temperature record, as I have no thermometer. Piled lumber in storehouse. Commenced unpacking, and cleaned house to some extent.

September 3: Sunday. Very quiet day. Treated a few patients. One man with very severe ulcer on right shoulder. Weather and temperature about the same. No meeting on account of lumber in schoolroom.

September 4: Very misty and rainy. Temperature about 54° . Moved lumber from schoolroom to storehouse and shed. Gave medicine to several sick patients.

September 5: Raining all day. Temperature, 52° . Spent the morning unpacking books and drugs. A native, apparently the worse for liquor, came in toward evening. Acted foolishly, but was easily controlled.

September 6: Rainy and misty. Temperature, 50° . Arranged with Ahningo to work for me for one sack of flour per month or its equivalent. Have taken inventory of the goods in the storehouse.

September 7: Rainy most of the day. Brighter toward evening. Ahningo told me a great many things about Mr. Doty, and seemed particularly anxious that I should be very liberal to him (Ahningo). Most of the natives seem to have the unamiable trait of greediness developed to an alarming extent.

September 8: Rainy and misty. Temperature, 50° . Dressed several ulcers. Took some pictures. One man was very much frightened, fearing that I had sinister designs upon his house, and having a wholesome respect for Captain Jarvis I assured him that if he behaved himself I should not report him to the Captain.

September 9: Temperature considerably lower. Can not be more than 45° . Heavy rain and wind storm. Baked bread and prepared for Sunday.

September 10: Sunday. Temperature, 45° . Strong NNE. wind. Day fairly bright; no rain. Held a meeting at 11. a. m., using

Ahningo as interpreter. Find him very unsatisfactory. Have the impression that he does not interpret correctly. Shall endeavor to get some one else, if possible. Room was crowded, and many were outside the door.

September 11: Monday. Temperature, 42° . High wind. Opened school. Twenty-eight boys present. No girls. Some of them write very well, and read considerably more than they can comprehend.

September 12: Temperature, 40° . Misty and rainy. School. Used the new books, which they do not like, as it takes more mental effort than they care to manifest to grasp the unfamiliar lessons. Studied "Messinga talk" with Ahningo.

September 13: Temperature, about 40° . Rain in morning, snow in afternoon. Snow melted as soon as it reached the earth. Have had to invite several men to leave the schoolroom. They would be glad to make it a public lounging place.

September 14: Temperature, 40° . Some sunshine in the morning. Storm in the afternoon with a little snow. Strong northeast wind.

September 15: Temperature, 38° . Snowing at intervals through the day. Northeast wind. Completed first week of school. Have had four girls present part of the time, but they have to be coaxed. The boys are very irregular, and stay away on very trivial excuses. There is, however, no way of compelling their attendance. To-day promised to give presents at Christmas to regular attendants. Am not convinced of the wisdom of this measure, but expect it will stimulate regularity, although from rather a base motive. The Presbyterian Church of Wapello, Iowa, has sent up a bale of things for this purpose.

September 16: Temperature, about 35° . A little ice. Strong northeast wind. Day rather bright. No school. Explained to Ahningo the subject of to-morrow's service.

September 17: Sunday. Service in morning. Ahningo interpreted very much better. Temperature, about 38° . Northeast wind. Cloudy.

September 18: Temperature, 40° . Calm. Cloudy. School.

September 19: Temperature, 45° . Bright and clear. School.

September 20: Temperature, 42° . Cloudy. The people are at work on their winter houses, which necessitates the absence of the older scholars to a large extent.

September 21: Temperature, 38° . Cloudy. School as usual. A little under the weather on account of having contracted a cold by some means.

September 22: Temperature, 40° . Bright in morning, cloudy in afternoon. Temperature fell several degrees. Light snow. Completed second week of school.

September 23: Temperature, 35° . It has been trying to snow all day, and the ground is now white. Devoted the day to baking and general house cleaning.

September 24: Sunday. Temperature, 38°. Snow. Service largely attended and attention very good.

September 25: Temperature, 38°. Bright. School.

September 26: Temperature, 38°. Bright and calm. School.

September 27: Temperature, 36°. Cloudy. School.

September 29: Temperature, 38°. Southwest wind. Very heavy mist. School.

September 30: Southwest wind. Temperature, 38°. Went up the mountain and viewed the country beyond. Not an enlivening prospect.

October 1: Sunday. Temperature, 34°. Bright and calm. Wind changing. Service in the morning: Parable of sower. Very large attendance. Opened an abscess in the leg of Shoolook's baby.

October 2: Violent northwest wind. School. Attendance larger than usual.

October 3: School interrupted this morning by natives, which excited the children. Sighted a vessel in the afternoon, but she "passed by on the other side." Temperature, 26°. Wind in northwest.

October 4: Temperature, 34°. Wind moderated. School.

October 5: Temperature, 30°. Northeast wind. School.

October 6: Bright. Wind changing. School.

October 7: Strong northeast wind. Snow in the afternoon, changing to rain. An old man who has paralysis agitans has been taken sick. Gave him medicine, with instructions to stay in bed. Does not seem inclined to obey.

October 8: Sunday. Temperature, 38°. Calm and clear. Sick man, Kavaluk, is better. Meeting in morning. Explained the Incarnation.

October 9: Temperature, 38°. East wind and rain. School.

October 10: Temperature, 38°. Strong east wind last night, which badly damaged schoolroom chimney and blew down the door of the shed; also the yard gate. School late on account of accident to chimney!

October 11: Temperature, 38°. Cloudy and a little rain. Light east wind. School.

October 12: Temperature, 34°. Violent east wind. Very heavy rain all day.

October 13: Temperature, 30°. Wind changed to northeast. Severe wind and rain all day. School.

October 14: Temperature, 34°. Heavy mist. Washed and baked. No school.

October 15: Sunday. Calm and quiet. Temperature, 34°. Service in morning. Womkone interpreted. Subject, "The boy Christ in the Temple.

October 16: Monday. Calm and bright most of the day. Temperature, 38°. A steam whaler passed in sight.

October 17: Calm and bright. Temperature, 36°. School. Smoke of a passing steamer sighted.

October 18: Temperature, 28°. Northwest wind. Very heavy mist. School.

October 20: Temperature, 34°. South wind. School.

October 21: Temperature, 36°. Calm and quiet. Baked in morning. People caught a great many cod-fish.

October 22: Sunday. Temperature, 34°. East wind. Spoke to people about baptism of Jesus and His temptation in the wilderness. They seemed more than usually interested.

October 23: Temperature, 24°. East wind. School. Dressed Tungaito's leg again. Saturday while hunting he cut the tendon of the quadriceps extension, severing a large part of it. Wound is doing very well.

October 24: Temperature, 28°. East wind. Misty and fine rain all day. School.

October 25: Temperature, 30°. Heavy mist and fine rain all day. East wind. School. Gave soap to the children on Monday, with instructions to wash before coming to school. There is certainly some improvement in their complexions.

October 26: Temperature, 18°. Light fall of snow last night. North wind all day. Light mist. School.

October 27: Temperature, about 16°. North wind. Wound in Tungaito's leg completely healed, but he is unable to walk much yet on account of weakness of the tendon.

October 28: Temperature, 14°. Violent north wind.

October 29, Sunday: Temperature, 14°. Service in morning. Subject: The attempt to throw Jesus over the cliff. Lake firmly frozen. Many boys skating.

October 30: Temperature, 15°. North wind. School.

November 1: Temperature, 20°. Cloudy. North wind. School. Am beginning to see considerable improvement in the scholarship and discipline. Attendance is fairly regular. This afternoon, put a new pane of glass in the kitchen window to replace one broken by the boys throwing little pebbles. Do not think the damage was intentional. A very cold job.

November 2, Thursday: Temperature, 25°. Cloudy. Light fall of snow. Northwest wind. School.

November 3: Temperature, 28°. Wind southeast. Light snow. School.

November 4: Temperature, 36°. Violent south wind all day. Rain. Baked and washed. Made a cake, but unfortunately burned it.

November 5: Temperature, 36°. Sunday. Wind and rain in morning. Afternoon, north wind and snow. Held service. Subject: Healing of centurion's servant.

November 6: Temperature, 30°. Wind southeast. Fine snow. School. Afternoon session of school somewhat curtailed by the necessity of attending Ahlonga. Orchitis, accompanied by retention of urine. Have no catheter, applied a hot water bag, and gave the indi-

cated internal remedy with very good results, patient soon passing a considerable quantity of water and pain being relieved. Made some oatmeal gruel for him, as he was unable to eat seal meat.

November 7: Temperature, 28°. Ahlonga much better.

November 8: Temperature, 20°. East wind. Cloudy. School.

November 9: Temperature, 28°. Calm and clear. School. Talked with Shoolook urging him to induce parents to send their children to school more regularly. Explained the advantages to be derived from studying. He said that the large absence was due to the necessity for hunting for food. This year no whales have been captured and the food supply at present is very low. Shoolook advises that I give the scholars breakfast, in which case, he said, they would all be able to come, but as I can not do so, it is necessary for some of them to hustle for their breakfast before coming to school. Ahlonga is improving slowly.

November 10: Temperature, 30°. Clear morning. Cloudy afternoon. Scholars showed up better to-day, probably owing to Shoolook's admonitions. Observed the first instance of gratitude for favors received, in the case of a boy whose arm I have been dressing.

November 11, Saturday: Temperature, 22°. Strong northeast wind. Baked. Boys scrubbed schoolroom floor. Ahninga tells me that the old men teach very emphatically "no resurrection of the body."

November 12, Sunday: Temperature, 20°. Keen northeast wind. Temperature falling and wind rising. Spoke to the people about the raising of Jarius's daughter. More women present than usual. Ahlonga was well enough to attend. He seemed grateful for my help and offered to give me two pairs of boots "when the walrus comes." The Messinga memory is very short in these matters, but I am glad he recognizes the obligation.

November 13: Temperature, 16°. Northeast wind. Fine, drifting snow. School.

November 14: Temperature, 22°. Wind much less. School.

November 15: Temperature, about 18°. Violent northeast wind. Temperature rapidly falling. Had to remonstrate with Ahninga to-day for the irregular and unsatisfactory attention he has been paying at school.

November 16: Temperature, 6°. Still falling. Northeast wind. Lowered flagstaff as there is danger of it breaking.

November 17: Temperature, 12°. Less wind. Many of the people are entirely out of food, as they have caught no whales this year. Traded considerable flour to-day. School.

November 18: Temperature, 26°. Snowed all morning. Quiet and calm in afternoon. No school. Baked.

November 19, Sunday: Temperature, 24°. East wind and rain. Service in morning.

November 20: Temperature, 35°. Calm and bright. A little snow

in the morning. School. Took some pictures in afternoon. Have to trade a little on credit, as many of the people are entirely without food. A reprehensible practice, but can't be helped.

November 21: Temperature, 28°. North wind. School. Larger attendance than usual. Held Bible class in evening for the older boys, or rather young men. They read the words fairly well, but seem to gather no meaning from them.

November 22: Temperature, 20°. North wind. Driving snow all day. School.

November 23: Temperature, 12°. Sinking. Strong north wind. Sea covered with young ice. No school. Thanksgiving day. The people lately show a tendency to impose upon my good nature in endeavoring to accommodate them with food. Many of them are telling falsehoods to work on my sympathy, and I shall have to refuse to trade on the credit basis in the future. I am becoming convinced that however much it may be necessary to the people, it is a great drawback to the work of the teacher to trade.

November 24: Temperature, 5°. Violent north wind. Driving snow. The men have killed some seals, which will relieve them from their late difficulty in regard to food. School. Brought coal from shed in afternoon. The men and boys worked very willingly and energetically.

November 25: Temperature, 4°. Wind northeast. Bootaong and Itaka got seals to-day. No school. Baked bread.

November 26: Temperature, 10°. Sunday. Northeast wind. Service in the morning. Spoke of Christ the Living Bread. Think they were more impressed than usual. Assoona and others seemed quite thoughtful afterwards.

November 27: Temperature, 16°. Wind northeast. School. Ice gathering rapidly.

November 28: Temperature, 14°. North wind. School. Poor attendance owing to the excitement incident upon killing a number of seals and walrus. Bible class in the evening. Was pleased with the efforts the boys made to understand. Afterwards I played a number of selections for them upon the organ, which they appreciated very much.

November 29: Temperature, 25°. Calm and quiet. School. Built book shelves in sitting room.

November 30: Temperature, 26°. Calm and cloudy. Temperature falling. School. Kaviyahuk has a very severe sty.

December 1: Friday. Temperature, 24°. Calm and cloudy. School.

December 2: Temperature, 20°. No school. Baked, scrubbed, and washed. Very busy day. Allowed Assoona to put the skins on his canoe in the schoolroom, as it was too cold to work out of doors.

December 3: Sunday. Temperature, 18°. Clear and calm. Spoke to the people on the subject of regeneration.

December 4: Temperature, 10°. Somewhat cloudy. North wind. School. The hunting is progressing quite successfully.

December 5: Temperature, 3°. Northeast wind. School. Bible class in evening. A very enjoyable and, I trust, profitable meeting.

December 6: Temperature, 2°. Northeast wind. Cloudy. School.

December 7: Temperature, 0°. North wind. Cloudy. School.

December 8: Temperature, 4°. North wind. Bright and clear. School.

December 9: Temperature, 6°. Bright and clear. No school. Baked.

December 10: Sunday, 0°. North wind. Cloudy. Service in morning. Subject, the Crucifixion. Ahninga showed considerable unwillingness to translate my application of the subject to the hearers.

December 11: Temperature went up to about 20° in middle of the day. Last night snow storm and east wind.

December 12: Temperature, 35°. Southeast wind and snow. School. Bible class in evening.

December 13: Temperature, 30°. Southeast wind and snow. School.

December 14: Temperature, 35°. Calm and clear. Full moon and beautiful night. Had a long talk with Assoona about Jesus. He holds tenaciously to his own views that God has both a son and a daughter, the latter being the moon.

December 16: Temperature, 35°. Bright and clear in morning. Snow storm later. No school. Baked.

December 17: Temperature, 10°. Bright and clear. Very gaudy sunset. Service in morning. In the afternoon many of the children came into the schoolroom and I explained Bible pictures to them.

December 18: Temperature, 12°. Cloudy. Northeast wind. School.

December 19: Temperature, 5°. Cloudy. Light north wind. School. Some of the larger boys brought coal from the shed. Bible class in the evening.

December 20: Temperature, 0°. Cloudy. North wind. School.

December 21: Temperature, 10°. Strong north wind. Cloudy. School. Could see fairly well without the aid of lamps between the hours of 10 a. m. and 4 p. m.

December 22: Temperature, 4°. Calm and cloudy. School. It was feared that three of the men were lost on the other side of the mountain or out upon the ice. We raised a lighted lantern upon Shoolook's flag pole and fired some giant crackers to guide their return. They arrived quite late, bringing a walrus head. It is very unusual for hunting parties to remain out beyond nightfall.

December 23: Temperature, 20°. Bright and clear. No school. Baked and commenced preparations for Christmas.

December 24: Sunday. Temperature, 10°. Bright and clear. Talked to children and showed them pictures in afternoon. Service in morning. Upa's mother is quite sick.

December 25: Temperature, 30°. Calm and quiet. Gave a feast to the school children, consisting of bacon, beans, raisins, candy, crackers, and tea. Had quite a harrowing time preparing for the occasion, cooking the food, etc. Ahninga helped me, but it was about 4.30 p. m. before it was ready. Then the children gathered in the schoolroom, whence I received them one by one to receive their share of the feast. They were to bring pans to carry it away in. Many of their pans would have sufficed to carry away a third of the entire amount provided. They were very quiet in the schoolroom at first, and I was surprised at the good order they maintained, but as dusk began to fall a murmuring made itself apparent, which soon swelled into a tumult, and when I left the kitchen to see what was causing the disturbance I found that the whole village had broken loose upon me, demanding "Kow-kow" in strident tones. So after supplying all the school children, I distributed the remainder among the people at large and turned them all out. It was just about as heavy a day's work as I ever undertook.

December 26: Temperature, 28°. Wind southeast. Heavy mist. Holiday. Had a little Christmas service and distributed the garments sent up by the Presbyterian Church at Wapello, Iowa. They were highly delighted at being able to adorn themselves with "white man's clothes." Bible class in the evening.

December 27: Temperature, 25°. Southeast wind very strong. Snow. Heavy mist. Holiday. Had the boys scrub the schoolroom.

December 28: Temperature, 25°. Light northeast wind. Clear and bright. Holiday. Held a short service in evening.

December 29: Temperature, 28°. Calm and clear. Holiday. Brought coal from shed.

December 30: Temperature, 30°. Calm and clear. Holiday. Baked.

December 31: Sunday. Temperature, 25°. Strong southeast wind and snow. Heavy mist. Service in morning.

January 1, 1900: Monday. Temperature, 28°. Southwest wind. Heavy mist. Holiday.

January 2: Temperature, 24°. Wind northeast. Clear and bright. School. Bible class in evening.

January 3: Temperature, 24°. Light northeast wind. Clear and bright. School.

January 4: Temperature, 20°. Heavy northeast wind and driving snow. Short service in the evening. School.

January 5: Temperature, 10°. Violent northeast wind. School.

January 6: Temperature, 0°. Wind northeast. No school. Baked.

January 7: Sunday. Temperature, -10°. Northeast wind. The frost nipped my nose to-day. A native told me it was freezing. Got home in time to prevent serious damage. Service in morning.

January 8: Temperature, -15°. Strong northeast wind. School. Many of the men did not hunt on account of the gale.

January 9: Temperature, -6° . Northeast wind. Clear. School. Omitted afternoon session, as it was necessary to take the opportunity of the daylight to bring coal from shed. Bible class in evening.

January 10: Temperature, -4° . Wind northeast. Cloudy. School.

January 11: Temperature, 0° . Wind northeast. Snow storm. School. Service in evening.

January 12: Temperature, 5° . Clear. School.

January 13: Temperature, 10° . Clear. Baked, washed, and scrubbed. Sewed up severe wound in Betwinkhuk's brother's arm.

January 14: Sunday. Temperature, 10° . Light northeast wind. Clear. Service in morning.

January 15: Temperature, 0° . Wind northeast. Clear. This morning only eight boys turned up for instruction and after waiting until 10 o'clock, hoping that more would come, I dismissed them, refusing to hold school unless a sufficient number should be present to attend the session. Told them to speak to the other children and induce them to come to-morrow. Spoke especially to Womkone, who is a bright boy and old enough to understand things pretty well, telling him that if the attendance was not mended it seemed highly probable that the Government would see the expediency of removing the teacher.

January 16: Temperature, -4° . Northeast wind. Cloudy. School. Improved attendance. Bible class in evening.

January 17: Temperature, -4° . Northeast wind. School.

January 18: Temperature, -6° . Northeast wind. School. Service in the evening.

January 19: Temperature, -15° . Northeast wind. School.

January 20: Temperature, -5° . North wind. No school. Baked. Upa's mother sick, also Savilla and Sepilla's sister.

January 21: Temperature, -0° . North wind. Service in morning. Aiyagon, Assoona's boy, is sick. Upa's mother somewhat improved.

January 22: Temperature, 0° . Calm and clear. School. Aiyagon is better.

January 23: Temperature, 5° . Calm and clear. School. Bible class in evening.

January 24: Temperature, 5° . Calm and clear. School.

January 25: Temperature, 0° . Wind northeast. School.

January 26: Temperature, -15° . Strong northeast winds. School.

January 27: Temperature, -5° . Northeast wind. No school. Baked.

January 28: Sunday. Temperature, 5° . Northeast wind. Snow. Heavy clouds. Service in the morning. Subject: Dives and Lazarus.

January 29: Temperature, 20° . Snow in morning. Cloudy and calm in the afternoon. Heavy mist. School.

January 30: Temperature, 26° . Snow. Southeast wind. School. Bible class in the evening.

January 31: Temperature, 30° . Snow. Southeast wind. School.

February 1: Temperature, 20° . Strong east wind. School could not be held on account of smoke inundating schoolroom.

February 2: Temperature, 30° . Calm and cloudy. School.

February 3: Temperature, 18° . Cloudy. Snow. Wind northeast by east. No school. Baked and scrubbed. Assoona sick.

February 4: Temperature, 15° . Sunday. Snow. Northeast wind. Service in the morning. Small attendance on account of storm. Many of the people are sick and have asked for medicine. Visited Assoona and Augakha.

February 5: Temperature, 15° . Northeast wind. Snow. School.

February 6: Temperature, 30° . East wind. Snow. School. Bible class in the evening.

February 7: Temperature, 25° . Strong east wind. Snow. School.

February 8: Temperature, 25° . East wind. Snow. School.

February 9: Temperature, 15° . Temperature falling. Northeast wind. Snow. School.

February 10: Temperature, 0° . Northeast wind. Snow. No school.

February 11: Sunday. Temperature, -4° . Northeast winds. Service in morning.

February 12: Monday. Temperature, 20° . East wind. Snow. School. Food supply again very low. Many of the natives are begging or desiring to trade, but I have already reduced my own supplies to about the minimum.

February 13: Temperature, 33° . East wind. Again unable to hold school on account of the smoke.

February 14: Temperature, 28° . Wind northeast by east. Cloudy and snow. School was somewhat interrupted by the wind carrying the bell away, and by necessary attendance upon sick persons.

February 15: Temperature, 32° . Wind northeast by east. Clear and bright. A number of large seals and walruses have been captured by the canoes. School.

February 16: Temperature, 24° . Northeast wind. Clear and bright. School.

February 17: Temperature, 20° . Clear and bright. No school. Baked and washed.

February 18: Sunday. Temperature, 10° . Bright. Service in the morning. An unusually large number of people sick.

February 19: Temperature, 0° . Northeast wind. Bright and clear. School.

February 20: Temperature, 10° . Calm and clear. School. Bible class in the evening.

February 21: Temperature, 0° . Northeast wind. Bright and clear. School.

February 22: Temperature, -5° . Northeast wind. Bright. School.

February 23: Temperature, 5° . Light northeast breeze. Clear. School.

February 24: Temperature, 15°. Northeast wind. Bright. No school. Baked.

February 25: Sunday. Temperature, 20°. Bright. Service in the morning.

February 26: Temperature, 15°. Northeast wind. School.

February 27: Temperature, 5°. Northeast wind. School. Bible class in evening.

February 28: Temperature, 5°. Light northeast breeze. School.

March 1: Thursday. Temperature, 10°. Calm. Light clouds. School. Meeting in the evening.

March 2: Temperature, 20°. Calm and cloudy. School.

March 3: Temperature, 10°. Strong east wind. No school. Baked.

March 4: Sunday. Temperature, 34°. Strong southeast wind. Service in the morning. Small attendance on account of severe snow-storm.

March 5: Temperature, 35°. Calm and cloudy. School.

March 6: Temperature, 30°. Clear and calm. School. Bible class in the evening.

March 7: Temperature, 20°. Cloudy and calm. School.

March 8: Temperature, 30°. Clear and calm. School.

March 9: Temperature, 18°. Northeast wind. Clear. School.

March 10: Temperature, 5°. Northeast wind. Clear. No school.

March 11: Sunday. Temperature, about 5°. Light clouds. Northeast wind. Service in the morning.

March 12: Temperature, 0°. Cloudy. Northeast wind. School.

March 13: Temperature, -10°. Northeast wind. Cloudy. School. Bible class in evening. Sent letter by Shoolook in search of the white men who are supposed to be on the other end of the island. Early in January some Southwest Cape natives reported that they had seen traces of a white man and crumbs of bread in a deserted native house far to the east. Have talked several times with Shoolook with a view to getting him to make an exploring trip. Offered at first to go with him, but this he did not consider advisable. The dearth of food and necessity of hunting has hindered him very much in making the trip. Wrote a letter offering medical help in case prospectors were wintering on the eastern shore and should be in need of it, or any assistance in my power if it proves to be a shipwreck.

March 14: Temperature, -5°. Northeast wind. Clear. School.

March 15: Shoolook returned to-day with a note from Messrs. Charles Elliott and James Murphy, the survivors of a crew of six belonging to a small schooner wrecked on the island last fall. Shall send Shoolook for them as soon as the weather permits.

March 16: Temperature, 0°. Violent snowstorm. Northeast wind. No school. Spent morning in making bread for the shipwrecked sailors, as their note states that they have long been without food.

March 17: Temperature, 20°. Storm all day. Clear in evening.

Sent Shoolook with food and clothes to fetch wrecked men. A number of the other natives accompanied him. They started soon after the cessation of the storm, about 11 30 p. m. Fine moonlight night.

March 18: Temperature, 20° . Calm and clear. Service in morning.

March 19: Temperature, 20° . Cloudy and light snow. Northeast wind. School.

March 20: Temperature, 10° . Northeast wind. Cloudy and snow-storm. Bible class in evening.

March 21: Temperature, -20° . This afternoon about 5 o'clock Mr. James Murphy arrived. He was carried on the sled of the native Ahtaiyukhuk and spent the night in Raghuk's house, which is some 15 miles distant on the other side of the mountain. Mr. Charles Elliott was carried by Imurrgan. They started on the morning of the 20th, the weather being fair. In a few hours a strong northeast wind arose, with snow, and the temperature fell rapidly. Mr. Murphy was able to walk a little and Ahtaiyukhuk's sled pushed forward and arrived at Raghuk's house about 9 p. m., after a day of extreme hardship. Mr. Elliott was suffering from gastroenteritis, as well as being at the last extremity of emaciation and exhaustion from lack of food, and was too weak to walk. As the cold grew more intense he grew weaker and weaker and began to vomit violently. During the afternoon he succumbed to the effects of the cold and illness combined, and Imurrgan buried him in the snow.

March 22: Temperature, -15° . Northeast wind. No school. Spent the morning in settling with the natives for their services in bringing Mr. Murphy from the wreck. They have completely looted the vessel—taken even the skylights from the cabin. They also robbed Mr. Murphy and Mr. Elliott of many things, some of which we succeeded in recovering.

March 23: Temperature, -10° . Northeast wind. School.

March 24: Temperature, -5° . Northeast wind. No school. Baked.

March 25: Temperature, -5° . North wind. Service in the morning. Mr. Murphy is getting a little stronger.

March 26: Temperature, -10° . North wind. School.

March 27: Temperature, -15° . North wind. School.

March 28: Temperature, 0° . West wind. School.

March 29: Temperature, 15° . West wind. School. Held a meeting in the evening to settle Mr. Doty's accounts against the natives. Some of the debtors have removed to Indian Point and Plover Bay, and most of the others claim that they have paid their accounts to Mr. Doty. Others say they do not owe, and there seems to be a general disposition to evade the debts. Had to reprimand Ahninga severely for his improper conduct while interpreting and for his evident efforts to and in repudiating the debts. Sepella helped very much.

March 30: Temperature, 10° . West wind. School.

March 31: Temperature, 5°. North wind. Cloudy.

April 1: Sunday. Temperature, 0°. Service in morning.

April 2: Temperature, 10°. Light clouds. West wind. School.

April 3: Temperature, 0°. Northeast wind. Bright. Mr. Murphy and I hunted ducks, but unsuccessfully. School.

April 4: Temperature, 0°. Northeast wind. Cloudy. Snow. School.

April 5: Temperature, -20°. Northeast wind. Cloudy. Snowstorm. School. Six sleds arrived from Southwest Cape.

April 6: Temperature, -15°. Snowstorm. Attendance at school so small that the afternoon session was omitted.

April 7: Temperature, -10°. Strong southeast wind. Snow drifting heavily. Mr. Murphy baked.

April 8: Sunday. Temperature, -10°. Northeast wind. Severe snowstorm. Service in the morning.

April 9: Temperature, 0°, rising to 10° later. Northeast wind, changing to southwest. School.

April 10: Temperature, 0°. Wind changeable. Snow. School.

April 11: Temperature, 15°. Southwest wind. Snow. Cloudy, but clear toward evening. School.

April 12: Temperature, 5°. Northeast wind. Snow. Cloudy. School.

April 13: Temperature, 0°. Northeast wind. Snow. School. Prepared boots for shipment.

April 14: Temperature, 0°. Northeast wind. No school. Mr. Murphy baked.

April 15: Sunday. Temperature, 0°. Strong northeast wind. Snow. Service in the morning. Small attendance on account of the severe storm.

April 16: Temperature, 10°. Strong northeast wind. Snow. School. Very few children present. It is increasingly difficult to induce a proper attendance. Packed one barrel of boots.

April 17: Temperature, 0°. Northeast wind. Wind. School. Packed boots.

April 18: Temperature, 10°. Wind changing. School. Mr. Murphy and I went along the beach in a southerly direction looking for white foxes, but saw none.

April 19: Temperature, 0°. Northeast wind. Bright. Snow drifting. School. Packed boots.

April 20: Temperature, 0°. Northeast wind. Bright. School. Took some pictures in the afternoon.

April 21: Temperature, 0°. Northeast wind. Bright. No school.

April 22: Sunday. Temperature, 15°. Northeast wind. Cloudy. Service in morning.

April 23: Temperature, 20°. Bright and clear. Calm. School. Mr. Murphy and I went for a long walk around the end of the mountain upon the ice.

April 24: Temperature, 14°. Bright. Northeast wind. School.

April 25: Temperature, 15°. Cloudy. Northeast wind. Snow. School. Sepella's mother and father mended a great many of my boots.

April 26: Temperature, 25°. Cloudy. North wind. Snow. School.

April 27: Temperature, 25°. Cloudy. Northeast wind. Snow. The children are no longer able to attend school in sufficient numbers to make it worth while to hold a session. Their parents require their aid almost constantly, and I have decided to discontinue the school for this year. Held closing exercises and distributed colored pictures to the more regular attendants.

April 28: Temperature, 25°. Cloudy. Northeast wind. Snow. Baked and washed. Cleaned schoolroom locker and packed the books away; also scrubbed the floor.

April 29: Temperature, 28°. Cloudy. Northeast wind. Service in the morning. Wumkone translated and proved a very great improvement.

April 30: Temperature, 35°. Very strong southeast by east wind. Ice pack rapidly breaking. Sepella's mother sewed for me in the afternoon.

May 1: Tuesday. Temperature, 35°. Southeast by east wind. Wind expanse of open water. Four whales sighted and chased, but without success.

May 2: Temperature, 30°. Northeast wind. Shore ice broken up and ready to drift away. Cloudy.

May 3: Temperature, 0°. Violent northeast gale. Snow. Worked all day on accounts.

May 4: Temperature, 20°. Northeast wind.

May 5: Temperature, 30°. Northeast wind. Bright.

May 6: Sunday. Temperature, 28°. Northeast wind. Cloudy. Service in morning.

May 7 to May 15: On Monday, the 7th, Mr. Murphy and I started with dog sleds to look for the body of Mr. Elliott. We covered about 90 miles but were quite unsuccessful, the place where he is supposed to lie being covered with many feet of snow. Since then have been suffering from snow-blindness.

May 18: Temperature, 34°. Northeast wind. Shoolook tells me that while we were absent from the village a canoe containing 6 persons—3 men and 3 women—was attacked by a large walrus. The creature thrust its tusks over the side of the canoe, swamping it, and drowning the entire crew.

May 19: Temperature, 34°. A bark was sighted about 4 a. m., but she went on past toward Indian Point. Mr. Murphy baked. Writing letters all the past week.

May 20: Sunday. Temperature, 26°; later, 40°. Northeast wind. Heavy mist. Fine snow. Cloudy. Service in morning.

May 21: Temperature, 40°. Misty. Wind changeable. Mr. Murphy and I went hunting; secured two ducks.

May 22: Temperature, 40°. Misty. Wind east and southeast. Mr. Murphy is quite sick, owing probably to going in the water yesterday after the duck. A number of natives are suffering from colds, etc.

May 23: Temperature, 40°. Misty. West wind. Mr. Murphy somewhat improved.

May 24: Temperature, 36°. Heavy mist. West wind. Mr. Murphy up most of the day.

May 25: Temperature, 25°. Bright. North wind. The bark *Beluga*, Captain Bodfish, arrived about 5 a. m. Breakfasted with the captain. Vessels traded with the natives for about 300-pairs boots, giving tobacco chiefly in exchange. Did not trade whisky. The captain states that the barks *William Bayliss*, *Jeannette*, and *Belvidere* will soon arrive.

May 26: Temperature, 26°. Cloudy. Northeast wind. Stored lumber in the storehouse and schoolroom. Traded for four dogs, two each for Mr. Murphy and myself.

May 27: Temperature, 20°. Sunday. Snow. Service in the morning. Sepella interpreted and proved very satisfactory. About 9 p. m. the *Alexander*, Captain Tilton, cast anchor. Mr. Murphy and I called on the captain and had a very pleasant conversation. The natives traded a great deal of ivory and whalebone for flour, bread, molasses, sugar, etc. Captain Tilton does not trade whisky. Sent us off some fresh meat and a sack of flour, as our provisions were running low.

May 28: Temperature, 32°. Northeast wind. Snow. Fog. During the night the *William Bayliss* arrived and traded with the natives. About 7 a. m. the *Karluk*, Captain McCreegan, also arrived. During the morning Mr. Murphy and I saw many of the natives who were intoxicated.

May 29: Temperature, 40°. West wind. Bright. The natives have mostly recovered from their carouse. Shoolook and Assoona refused to trade for whisky, saying that it was "very bad." According to Assoona, it is now all gone and there will be no more drunkenness. Both of them feel the disgrace of their people considerably. At Indian Point the natives have traded freely for whisky, and for days almost the whole village has been raving mad. Many of the children have been shot by the men in their drunken frenzy, and some of them have died from the results of the drink. One man jumped into the sea and was drowned. Assoona says they place a keg in the center of the house and sit around and drink until they are no more capable of it. Tahningo and Kawarran, the chiefs who usually visit this place in the spring, are overcome with liquor and unable to come. The natives also tell of a "Russian man" (possibly an official) who has been very sick and died recently.

May 30: Temperature, 28°. Cloudy. East wind.

May 31: Temperature, 34°. Cloudy. North wind. A steam vessel passed southward bound.

June 1: Temperature, 44°. Northeast wind. Bright. The bark *Alaska*, Captain Cogan, arrived about 5 p. m., carrying freight and passengers for Cape Nome. She did not bring anything for the mission of the goods which were to be sent up for Assoona. Visited her in Shoolook's boat and had a pleasant talk with the captain and passengers. Mr. Murphy left for Anvil. Captain Cogan took 7 barrels and 1 box of boots and 2 sacks of ivory to deliver to the North American Transportation and Trading Company for me. Eight of the natives shipped for the whaling season. Sent letters by Mr. Murphy.

June 2 and 3: Went hunting with Shoolook on the 2d. Expected to be back in a few hours, and so took only a small piece of bread in my pocket; but it seems Shoolook had a long trip in his mind. We sailed or rowed all night and in the early morning arrived at the ice field, considerably more than half way to Indian Point. Am sorry to have missed the Sunday service, but was unable to induce Shoolook to return Saturday night.

The boat went up and down the edge of the ice for many hours while the men examined the floes with a telescope for walrus or seals. Not finding any, we finally steered in among the floes and the lookout man eventually saw a fine large seal lying asleep upon a cake of ice about a quarter of a mile distant. Shoolook quickly gave the order, and silently we stole upon him, using paddles instead of the oars and making little noise; screened by intervening floes we were able to come within a few paces of him. At this moment two men stationed in the bows fired, but apparently from excitement both aimed amiss, and he flopped awkwardly into the water and we saw him no more. Upon the next trial, however, they were more fortunate, and a fine large seal was killed. Two of the natives landed upon the floe to cut him up while we went off for another which was in sight.

It was now my turn to shoot, and we were delighted to see the seal give one shudder and lie quite still. The natives got out of the boat upon the ice floe and quickly butchered him. In the space of fifteen minutes from the time he was killed they had removed the skin, cut off the head and tail and quartered him, cleaned the entrails and washed the meat, which was now ready to be loaded into the boat.

Some of them cut off pieces of the raw flesh, still quivering and wet with the life blood, and ate them. It was a large seal or mukluk, weighing between 350 and 500 pounds.

On returning I found that the natives had broken the string securing the side door in the shed and entered the house, turning it upside down and stealing many trifling things. Have missed nothing of any particular value as yet. One of the dogs was gone, but a woman

came with an animal which she claimed was mine. I am not altogether satisfied of the identity, but shall keep the dog in default of a better. Have spoken to Shoolook about it, and we shall investigate the matter to-morrow.

June 4: Cloudy in the morning. Bright in the afternoon. Light northeast breeze. I learn from Shoolook that some white men came ashore from a sailing vessel which was passing yesterday, but left no word for me. The "burglary" was accomplished, it seems, by boys. Most of their parents came to me to-day, apologizing for them and bringing some of the things which they had purloined. Had the two ringleaders brought before me, and after a moral lecture upon the enormity of stealing, administered corporal chastisement in order to prevent a repetition of the offense.

June 5: Temperature, 38°. Violent southeast by east gale with rain all day, turning to snow in the evening. During the afternoon a small schooner anchored in the lee of the north shore. Went out to her in Shoolook's boat and had a talk with the passengers. Was glad to get some newspapers.

June 6: Gale continued all night and to-day. This morning about 3 inches of snow covered the ground. Temperature, 25°. Schooner left during the night. Packed medicines, etc.

June 7: Temperature, 35°. Strong southeast wind. Rain. Mist.

June 8: Temperature, 38°. Southwest wind. Rain changing to snow in the evening.

June 9: Temperature, 38°. Bright morning. Cloudy afternoon. Southeast gale. The bark *Alexander*, Captain Tilton, came in the morning and anchored in the bay on the other side of the mountain. Traded quite largely. Went off in one of the boats and watched them for a while. Captain Tilton is very fair in his dealings with the natives, even liberal. He says he has been all along the Siberian coast, but has done no trading on account of the natives being in such a drunken condition that they are unable to come off to the vessel.

June 10: Sunday. Temperature, 38°. Fog. Service in the morning. Noongwook interpreted, but very unsatisfactorily. A great many of the people have laryngitis or bronchitis. Some of the children show indications of measles. A large passenger vessel passed toward Nome about noon. Probably *Garonne* or *Roanoke*. Saluted our flag in passing.

June 11: Temperature, 40°. Cloudy. Measles is epidemic. The people are inclined to attribute the sickness to the vessel passing yesterday having brought a devil from the southern waters.

June 12: Temperature, 35°. Northeast wind. Cloudy. Most of the people are undergoing the measles. As they will not stay inside their houses, the eruption is in a great many cases suppressed, making the disease a great deal more dangerous than it otherwise would be. Have been visiting them and dispensing medicine all day. Kahnukteryuk is the worst case; he exhibited severe meningeal symp-

toms this morning. Has been unconscious all day long, but seems somewhat better this evening.

June 13: Temperature, 50°. Northeast wind. Bright. Moongaues boat arrived from Indian Point, bringing Sepella and others of the natives belonging here. The reports of sickness and deaths at Indian Point are confirmed. Imurrgan, Shoolook's brother, was too sick to return, and Shoolook will go to him as soon as his boys are well.

June 14: Temperature, 50°. South wind. Bright. Kahmukteriyuk is out of danger and most of the people are able to get around. Shoolook started for Indian Point, but did not take the boys. Working all day at spring cleaning.

June 15: Temperature, 46°. East wind. Cloudy and misty. Rain. Last night a schooner passed toward Nome.

June 16: Temperature, 45°. Northeast wind. Cloudy. Considerable ice off the north beach. The *Progress*, of Vladivostock, a Russian steamer, Captain Gunderson, arrived about 9 p. m. She is chartered by a British syndicate for prospecting on the Siberian coast. Messrs. Shockley and Vanderslip, American engineers, are in charge of the party.

June 17: Temperature, 45°. Southeast wind. Cloudy. Rain in the afternoon. Unable to hold service on account of the trading steamer *Corvin* arriving. Took dinner on board. Captain Foster tells me that the bark *Alaska* was lost off Cape Nome in the southeaster of June 5; everything lost except the lives of the passengers and crew. The *Bear* with Dr. Jackson has been at Nome and will probably arrive here soon. The party from the *Progress* prospected upon the beach and examined the geological formation of the country, but found no indications of gold.

June 18: Temperature, 54°. Bright. Southwest wind. *Corvin* and *Progress* left this morning for Indian Point. A schooner passed in the evening in the direction of Nome.

June 19: Temperature, 54°. Northeast wind. Bright. Shoolook arrived from Indian Point. Considerable ice on the north beach. Shoolook says the ice is very heavy over toward Indian Point and that three boats which started with him had to turn back on account of it.

June 20: Temperature, 54°. Northwest wind. Bright. Shoolook tells me that a great many Indian Point people died of the measles, including all the people in one house. They have had but little food and have suffered from famine. Anungtes's wife died at Indian Point.

June 21: Temperature, 55°. Northwest wind. Bright. Steam whaler *Belvidere* arrived about 7 a. m. Sent letters to St. Michael.

June 22: Temperature, 55°. Bright. Northeast wind. Wrote yearly report of school work.

June 23 to 30: On June 23 the schooner *Casco* arrived with Mr. Doty and Mr. Ole Krogh, bringing supplies for the station. Dr. Jackson writes that Mr. Doty and myself are to be associated in the

work at this place during the coming year, with Mr. Krogh to assist in the reindeer service and in enlarging the schoolhouse. The *Bear* will purchase 100 head of reindeer upon the Siberian coast and place them here with two Laplanders to care for them.

The station supplies for the coming season also arrived on the *Casco*, and Mr. Doty brought up a large quantity of lumber and supplies for the chief Assoona in place of the whalebone and ivory taken down the previous year.

On June 30 the *Progress* returned and left with us a Chinese servant who had accidentally been shot in the thigh, with another Chinaman to care for him. They propose to return in about ten days to take him away.

SUPPLEMENTARY REPORT OF DR. LERRIGO.

ST. LAWRENCE ISLAND, *September 8, 1900.*

DEAR SIR: On August 30, Captain Roberts, of the United States revenue cutter *Manning*, brought letters for Mr. Doty, which Captain Tuttle of the *Bear* had requested him to call and deliver. The letters contained very serious news in reference to the indisposition and mental uneasiness of Mr. Doty's mother on account of his absence and urged him to return at once. Fearing for her mental balance, he has decided to leave on the next visit of the revenue cutter *Bear*.

I shall remain and assume his duties in addition to my own. During the time we have been associated we have divided the work between us—Mr. Doty taking charge especially of the work in connection with the reindeer herd and of the school teaching. Our relations have been most cordial and I sincerely regret that the necessity has arisen for his return.

In reference to his coming this summer I might state that my own continuance here is due chiefly to that event. The revenue cutter *Bear* brought me letters containing a proposition for professional work in Central America involving considerably increased remuneration with a much wider field for missionary effort, which many considerations would have led me to accept but for the necessity of leaving Mr. Doty alone in the work. Therefore his coming may be said to have supplied the field, even though he does not remain, while his return relieves the Department of the salary which would accrue to him after the date of his departure, the work still continuing.

Under the circumstances I have decided to place the Lapp herder who will arrive on the *Bear* in charge of the herd, retaining Mr. Krog to pass back and forth between the herd and this place with provisions, etc., and to assist me, as he will not then be needed with the herd. A suitable location has been found for the winter quarters, and most of the lumber has been taken there for the erection of a

house. The deer, 11 of which are now on hand, are right near the camp. Recently we learn that the natives have corralled 12 of the straying deer, which will be returned to the camp. The dead body of 1 deer has been found (the cause of its death unknown), so that 5 only are now missing.

We have finished constructing and painting the schoolhouse and commenced school and Sunday services. Mr. Doty has photographs of the premises as they now appear.

Sincerely, yours,

P. H. LERRIGO, M. D.

Dr. SHELDON JACKSON,

General Agent, Washington, D. C.

SUPPLEMENTARY REPORT—W. F. DOTY.

WASHINGTON, D. C., *October 9, 1900.*

SIR: I have the honor to report my withdrawal from St. Lawrence Island, Alaska, on September 18 ultimo, caused by the news of the breakdown in the health of my mother. I desire that my resignation of the office of teacher of the public school take effect from September 15 ultimo. I want to say that my vigilance alone prevented the captain of the *Casco* from casting overboard the lumber destined for the construction of the reindeer building on St. Lawrence Island, and hence was on duty from the start. Then, too, during the summer, Dr. Lerrigo and I shared the duties of the station, he superintending the erection of the addition to the schoolhouse, while I looked after the reindeer enterprise, as the Norwegian, Mr. Krog, who had been placed in charge of the herd, did not understand the people of the island and the herders did not obey him. I had to give many orders in person which otherwise would have been given by him to the herders. Frequently I had to settle misunderstandings between Mr. Krog and the herders.

It may be of interest to you to learn that the herd was doing well when I left. Of the original 29 deer there were at the station 16, while herders had been sent to a place where 7 or more had been observed to congregate; 1 dead deer was seen, which had probably injured itself in a swamp. There was a wound upon its neck which would indicate a shot or the bite of a dog.

You recollect, no doubt, that when this herd was unloaded it divided into two parties. It so remained for two weeks, caused by the inability of the herders on account of constant fog (chiefly) to locate the straying deer. The Norwegian and the herders were not very apt in herding, and this was a further difficulty. I gave notice to the natives in general to be very careful not to injure any of the missing deer, intimating the penalty of such offense, and invited them to report, for

a small reward, the resort of the stragglers. The 16 deer already referred to are exceedingly gentle, remaining close to the tent. As this was apparent, it seemed well to dispense with the services of Eyato and family. Furthermore, his laziness deserved this rebuke.

On the arrival of the U. S. revenue cutter *Bear* on its second trip 39 or possibly 40 deer were landed at the station, 2 having died, I understand, on the ship. Then deer were taken from the Port Clarence herd and were very large and strong. They did not scatter. A Laplander named Nils Sara, his wife, and their children were placed in charge of the herd, and with them a valuable deer dog.

I had previously arranged, with the advice of Mr. Krog, for the site of the winter house of the herders at a place somewhat sheltered from the northeasterly gales, at a point possibly 15 miles from Gambell, southeast of Cape Chibukuk, on the shore of the larger bay. I also carried supplies of lumber, etc., to this place.

The *Bear* brought food and trade goods for the station. This was well, as there were on hand rations for only six months. About 9½ tons of coal were landed through a heavy surf. It required great persuasion on my part to induce the natives, even for their own interest in school and services, to transport this coal from the *Bear* to the shore. This will suffice for the station during the year.

I began school September 4, and was glad to observe the enthusiasm on the part of the scholars. A partial vocabulary of the dialect of the natives and some photographs of the buildings on the island I will deliver to you later.

Regretting my necessary defection, I am,

Respectfully, yours,

WILLIAM F. DOTY.

Rev. Dr. SHELDON JACKSON,

United States Agent of Education for Alaska.

JOURNEY FROM POINT BARROW TO TELLER STATION WITH REINDEER.

[Page 20.]

CAPE NOME, ALASKA, *June 18, 1900.*

DEAR SIR: I have the honor to submit the following account of the return south of the deer from Point Barrow. In compliance with the instructions given me by Lieutenant Jarvis, my first care was to provide skin clothing and sleeping bags for the Laplanders and natives. This was more difficult than anticipated. Every year the number of wild cariboo killed grows less, and the skins, which in former years were brought over from Siberia and traded from native to native, are now bought and sold by whites, who can afford to pay more for them than the natives. After much searching for skins and breath con-

sumed in trading, our stock of clothing was complete. I then proceeded to the deer camp, which was some 20 miles south of Point Barrow. (This was not my first trip down, as I had run down several times by boat, while the outfit was being sewed.)

Our attention was then given to sleds, harness, and halters. The Laplanders I put to work on the harness, etc., while the carpenter was Chief Oyello, who volunteered his services for the sled building. Here also we were handicapped by scarcity of timber and tools. Six sleds were finally made, of which three were new and the remainder rebuilt from the relief expedition sleds. We also examined and worked sled deer, and found that when division was made we would have but six broken sled deer, or one for each sled. This, of course, was unfortunate, as each sled should have had two or three deer, to enable us to change and rest deer. Our time was too short to allow us to break untrained steers in a very thorough manner; besides, there were only five such deer in the herd, and as they had been castrated but a short time before they were unfit for heavy work. As winter was coming on rapidly we hurried our preparations, and by October 1 were ready to build a corral for the separation of the 100 deer for the mission and 25 for Chief Oyello. The corral was quite an artistic affair from my point of view, being composed of slabs of sawn ice 6 feet long by 3 feet wide and 1 foot thick. These were placed on end as close together as possible, in a crescent shape, and water poured on the bottom, which froze immediately, thus making a solid wall of ice, on which the bright sun shone. Dr. H. R. Marsh came down on the 2d, and the next morning we began separating the deer which were to remain from the main herd. This was accomplished before dark and the main herd driven south along the coast for 5 or 6 miles. The herds of the mission and Oyello were then released from the corral and driven north the same distance and a guard put on each herd. On the 4th we canoed our camping gear down to the deer, and continued about 15 miles farther. Early on the morning of the 5th we lassoed and haltered the sled deer, and then our trip by sled and the fun began. All of the deer were strong and full of life, and the way they started for all parts of the world on the dead run was more amusing to me than to their drivers. I had chosen for my deer a wise old fellow who was too sensible to tire himself with silly antics.

I will here state that slow and sure is as good a motto for deer as for men; old Appowro did more and lasted better than the fire eaters who acted like thoroughbred horses on a race course. We jogged on our way, making some stops for repairs, until we reached Icy Cape; here we killed a deer on the 18th and enjoyed some fresh meat very much, as we had been eating bacon for two months.

From Icy Cape to Sabine the weather was very bad for traveling, south and southwest winds, with much snow falling, making the trail

soft and heavy. There were 83 fawns in the herd, some of which were quite small, and they became tired out in a very short time, thus holding us back very much. Several of the grown deer were ailing and slow, and I was compelled to stop quite often to rest them. Owing to continual work the sled deer were very thin. On the 30th of October our first accident occurred. In crossing a deep gulch the deer crowded a small fawn under, and in some manner broke the bones of its front leg. This fawn we of course had to kill. Once the ice was broken, accidents came on apace. November 1 a 2-year-old bull went crazy, and was so dangerous to the herd it had to be killed. We tried the experiment of cutting off his horns first, but he fought so savagely with his sharp hoofs that he was still dangerous. Next evening our tent was wrecked by a northeast blizzard and blown to strips. On the 6th of November a cow was seen acting strangely, and was soon in a crazed state, which caused her to chase the deer and finally the dog. She was pressing the dog so hard I went to his rescue, when the deer attacked me, and I rushed to the sled. Over the sled we went, then over and back again, like a game of tag, until the deer happened to smell my sleeping bag, which was lashed on the top of the load, and immediately mistaking it for a fellow-deer attempted to gore the bag. This of course gave me the opportunity I was waiting for. Seizing her by the horns I threw her, and killed her in short order.

We now had a few fine days, and putting on a load of wood I started across the mountains, intending to strike the coast near the Kiveleena River. The sled broke down with the wood, and we were forced to make for the fishing village on the Point Hope River. Howling northeast blizzard from the 9th to the 13th of November, on which day we reached the village minus tent and provisions. Natives camped on the river gave us flour and fish, and the next morning, leaving the herd in charge of the Lapp, I took a dog team to go to Mr. Kelly's for provisions. These I sent to the herd next day. On the 16th of November the deer were moved about 14 miles from the river, as the food for them was poor on the river. There was an abandoned house for the herders, and I stayed with Mr. Kelly, to whom I am indebted for many favors and courteous treatment. During this time the northeast blizzard blew incessantly, and the weather was the most severe I have ever experienced. The first thing I did was to have some necessary clothing and a sleeping bag made for Larsen. Then the sleds were repaired and got steel shoeing. Bone is very poor shoeing for a trip on the coast, as the sand and gravel cut the shoeing off.

On the 26th of November the new tent which had been set up was blown down and much damaged. The deer corral was built and blown down several times before we finally made the separation of the deer. Finally, however, we gave Elektoona and Ahlook their 48 deer, and trading 5 tired sled deer for some fresh ones, we were ready to start. December 9 we started, and the next day crossed over Cape

Thomson. The roads were good, and we made good time over the cape. Weather was splendid, although days were so short (four hours) we were able to start and also camp by moonlight. Elektoona volunteered his services in place of the Lapp boy "Mickel," who refused to go on from Point Hope. Indeed the Lapps were a source of much trouble, wearing out twice the clothes anyone else did, and complaining from the first of the food, although everyone fared alike. One of the boys lost two bags of flour the first day out from Point Hope, and we were short of provisions before reaching Rev. Mr. Samms's house, Kotzebue Sound. The natives up and down the coast were much interested in the deer, but at Akalok the whole village followed us for several miles, some 15 or 20 men and boys even going with us to Kigaktowruk, a distance of 25 miles. They swung their arms and shoo-shooed with such good will we got across the inlet in good time. Their delight when they were allowed to ride was so visible you could see it depicted on their faces at a distance of 100 yards. We stayed at Kigetowruk two days, leaving December 22. On our departure Mr. Samms gave us a bag, which was not to be opened until the 25th. The 21st of December Mrs. Samms walked down to see the herd, and arrived in time to see the capture and death of a crazy deer. We celebrated Christmas, and I distributed the Christmas presents which the good mission people gave us, and they furnished much pleasure to all. We traveled on, having beautiful weather and good trails. We stuck to the beach, as the ice was unsafe to cross from cape to cape, and made the circuit of the sound.

By my notes I see the fact mentioned often of the played-out condition of the small fawns. But for this fact we would have made much better time. On January 7 we killed a deer for food, as we were in need of meat. Fresh meat and plenty of it a man needs to keep warm and healthy on a trip of this kind. We all had very good health considering the hardships which one naturally has to endure on a trip of this kind. Onakinya, one of the Point Barrow boys, was afflicted by an abscess on his jaw, and although I was anxious to leave him where he could have medical treatment and a house, he refused to stop, and was plucky enough to keep on. At the village of Kivelow, Ookee came to our tent and reported he had killed the native who shot two white men in March, 1898. These natives from between Kotzebue Sound and Prince of Wales made a very unfavorable impression on me, and I think they are much inferior to those either farther north or south.

I arrived at Cape Prince of Wales January 13, or, rather, at deer camp, and kept my deer about 5 miles from the Cape herd until I could communicate with Mr. Lopp. After stopping some time with him and taking a rest I crossed the mountains to Port Clarence, where the herd was left, in accordance with instructions received from Mr. Lopp.

On the way over a deer, which was unable to keep up with the herd, was killed. Turning the herd over to Tautook and Dunnak, I took 5 sled deer and continued to Nome, from which place provisions were bought for Larsen Hatta and he was forwarded to Eaton Reindeer Station. The party which accompanied me from Point Barrow to Point Hope consisted of Larsen Hatta, Mickel Bango, Atpully, and Wenjik, his wife, Onakinya, and a Point Hope boy, Kayuga. From Point Hope down Elektoona took the place of Mickel Bango. Elektoona is a very bright young man. He spoke English fairly well and Lapish very well, so Larsen says. So much has already been written on the subject of the importance of deer to the Eskimo that my humble pen can not hope to add much to the matter that has not been already discussed. However, some few things impressed me quite forcibly. Of course anyone who knows and thinks anything on the subject must admit the immense importance of deer to the natives, meaning raiment, food, and even thread and trinkets to them. The wild deer are practically exterminated and the natives must now take to the ocean ice for food, hunting for seal, which at certain seasons are very scarce. At times a native must tramp over the ice for 10, 15, or 20 miles to search for water and seal. Then, too, the native is in danger of and frequently does drift off on the perilous ice. The matter which most impressed me was how much improvement could be made in breeding. One would only have to castrate the scrub bulls, and, in fact, all bulls but a sufficient quantity for breeding purposes. Then an experiment might be made on cows. The bulls and cows breed before they have attained their full growth. Now, if the 1-year old cows, or part of them, were kept from the main herd, I think a larger breed would result. Also in the case of castration the bulls, instead of being poor and always fighting, would be fat, peaceable steers. The harness and sleds are very poor and much improvement could be made in them. The following table is a list of the disposal of the Barrow herd, which numbered 447 all told when I received them:

Point Barrow mission:

Males	9	
Females	62	
Fawns	26	
Sled and steer	3	
Sick females	2	
	—	103

Chief Ojello:

Males	2	
Females	16	
Fawns	7	
	—	25

Point Hope:

Males	5	
Females	30	
Fawns	13	
	—	48

Food:	
Females	5
Deaths:	
Fawn	1
Males	2
Female	1
	<hr/> 4
	184
Port Clarence	263
	<hr/> 447

Hoping the management of the deer while in my charge was conducted in satisfactory manner, I am,

Very respectfully,

WM. R. MARSHALL.

Dr. SHELDON JACKSON,
On board U. S. S. Bear.

PAYMENT OF BILLS CONNECTED WITH THE POINT BARROW EXPEDITION.

[Page 21.]

July 19, 1900: Wrote Capt. Francis Tuttle, commanding revenue cutter *Bear*, requesting him to pay the inclosed bills for the Government.

SHELDON JACKSON.

CAPE NOME ALASKA, *June 18, 1900.*

SIR: The following orders were given on the *Bear*: Frank Yusada, Point Barrow, 1 box hard bread, for walrus hide (harness); Ojello, for use of dog, 5 bags flour, 1 pair white deer boots: H. Kawai, Point Hope, for 2 deerskins, 4 deerskins; Puminktoo, fish sled, 2 bags flour: Onakinya, for 1 skin, 2 deerskins; Atpullly, for 1 skin, 2 deerskins: Kayuga, Tikik, Elektoona, from Point Barrow to Hope, Point Hope to Kigiktowruk, Point Hope to Prince of Wales.

The following was from Mr. Samms, for which no bill was put in: 1 bag flour, 1 miner's sled, 1 pound tea, 10 pounds bacon, 15 pounds dried fruit, 4 plates, 6 spoons, 1 gallon coal oil.

Very respectfully,

WM. MARSHALL.

Dr. SHELDON JACKSON, *U. S. S. Bear.*

MR. T. L. BREVIG ARRIVES AT TELLER STATION.

[Page 15.]

TELLER, ALASKA, *July 6, 1900.*

DEAR SIR: We have commenced to get things in order, but can not do much before the *Casco* arrives. The herd is south of Cape Riley, near Bering City. As we have no boat and the miners have all left us and the natives have not come around us yet, I have not been able to visit the herd as yet. From report Tautook has 40 fawns. I have

appointed the old marshal as my deputy, but am afraid he drinks some. Intoxicants are being sold in both places. An application will be made for a license and they wanted to do it through me, I refused. Factions exist among the miners, and also between the two town sites. We found everything we thought lost or stolen, one old stove excepted, stored in the Lapp house. Mr. Chard had stored it there when he vacated, and seems to have been more faithful than reported. We need some sheepskins prepared, and also one barrel of lime; also some yellow paint or yellow ocher, 5 gallons linseed oil, 50 pounds white lead.

Wife and children are thriving.

With kind greetings, respectfully,

T. L. BREVIG.

Dr. SHELDEN JACKSON,

General Agent of Education for Alaska.

REINDEER AT TELLER.

[Page 18.]

TELLER, ALASKA, *July 17, 1900.*

DEAR SIR: The Lapp returned to-day from the herd with rather unfavorable reports. He found the herd deserted by all the herders except Dunnak and family, and they were sick. Tautook and Sekeoglook were living on this side, near Teller City, but none were sick. Tautook's wife is sick and Sekeoglook's is dead, but neither of the men are sick. Dunnak's wife is also sick. He had watched all the deer for weeks; Tautook and Sekeoglook had not been near the deer. The herd was on the point of scattering. Dunnak came in with Tornensis, and I sent them out again with instructions to Tautook and Sekeoglook to proceed to the herd immediately or I would take possession of their deer. The herd will be moved, as the dogs are bothering the herd and have killed several fawns. Tornensis has shot two.

Tornensis counted 650 deer in all. Dunnak gave me the following account of the Government deer which he and his father and brother have herded:

Received into the herd.....	260
Fawns	98
	358
Died and killed:	
Males	8
Fawns	26
	34
Deer in herd July 17, 1900	324

He says that some more fawns may have been killed by dogs while he was so sick he could not walk and look after the deer. Two he

had sold for food and two he had killed for food, as he only had the deer to subsist on. I am better, but am not feeling well. Dunnak does not know how many deer the other herders possess. The natives around are still very sick. Dunnak is recovering slowly.

With kind greetings, respectfully,

T. L. BREVIG.

Dr. SHELDON JACKSON,
Nome, Alaska.

EPIDEMIC AMONG NATIVES.

[Page 11.]

TELLER, ALASKA, *July 19, 1900.*

DEAR SIR: The condition among the natives is getting worse. Measles has now appeared among them, and I am afraid many orphans will be left. I would take as many as possible here, but can not get help to take care of them, as all seem panic stricken. If food is not brought in from outside starvation will follow for the survivors. If you have any food left, after trading deer in Siberia, will you land it here, to be used as necessity requires. I have also written Captain Jarvis in regard to food supply. I need about 100 pounds of green coffee, and a crowbar, if it can be had from Eaton Station; also sleds and tugs or (Vaala sup) from there, stove polish, one package navy bread, and bacon would have traded well for reindeer. I sent one of the new rifles to the herd to protect them against the dogs. Johan had shot two, chasing deer.

Respectfully,

T. L. BREVIG.

Dr. SHELDON JACKSON,
Nome, Alaska.

TELLER, ALASKA, *July 22, 1900.*

DEAR SIR: Since the *Dora* is so long in coming, I will write further about developments here. I now have both the small log huts and a large tent full of sick natives, all but five being herders and their families; and I also care for people in three tents on the beach that have asked my help. All are fed by me and the food carried to them prepared. The tents are about 2 miles apart. Mrs. Wocksock and her only living son came in in a boat to-night so sick that she had to be carried on a stretcher from the boat. Her oldest boy and girl died Friday. One of the herders also came in sick. The herd is cared for by the Lapp and two natives. To-day Howick and I buried a young man and his child that died this morning. A coffin was made for the man. None of the family could get out of the tent.

I have 30 people to look after, and am about tired out. The natives want to come near the station, but always inquire if there are any white men besides the station people, as they are afraid of all others. We came in the nick of time to help and also to preserve the herd. It would have been scattered now if the natives had been left to themselves. My wife needs help, but as we are not able to offer any salary this coming winter to a competent person, we must try without. A native woman even can not be engaged now. Five orphans asked to be taken into the station to-night. Two were sick. They are here now. Some of the worst cases seem to be recovering.

Try and stir up the influential people, so some assistance in the shape of food and clothes can be sent in before the season closes. Can you let me have \$100 or so on an order on the mission fund? I want it to buy outfits from prospectors that are leaving the country and sell cheap. Yesterday I bought a small outfit at Seattle prices, thus saving the freight. I also inclose Tornensis's receipt for the \$30. If Mrs. Wocksock dies, I will keep the surviving boy at the station, and take charge of the reindeer for him. A word from you to Rev. V. Koren, Decorah, Iowa, in regard to our work in general, and also the present situation, would carry great weight in regard to future assistance. With kind regards.

Respectfully,

T. L. BREVIG.

Dr. SHELDON JACKSON,
Nome, Alaska.

TROUBLE WITH DOGS.

[Page 18.]

JULY 25, 1900.

DEAR SIR: Things are getting worse; eight deaths since Sunday morning. Tautook's two brothers and sister are dead. I am all tired out caring for the sick. There is some trouble at the herd about dogs, as the self-styled marshal threatens the Lapp because of shooting his dog, and I can not get away to investigate. My children have been sick, but are recovering now. Hope to see you up here before you go down.

In haste.

Respectfully,

T. L. BREVIG.

Dr. JACKSON.

TELLER, ALASKA, *August 9, 1900.*

DEAR SIR: The condition of things remains about unchanged; four have died since you were here. The people at the station are slowly getting better. Both my children are down with the measles,

and were quite sick. The natives will get some assistance from the Government through Capt. D. Jarvis. Teller City is about vacated, but I understand the post-office will go there and be opened up in a saloon. Please make out papers in regard to the herd to be loaned the mission; also general instructions in regard to the other deer, both Government and private, so I can have something to show if my authority is questioned. Captain Jarvis wrote that he will take charge of "Charley's" deer. Kjellmann has bought some females from Tautook, 5, and 1 from each of the others, two years ago, and with the increase should have 17 or 18 deer in the herd. Fredrik was in and asked about the deer, and I told him for my herd I had all the help needed, and had no instruction to give him any Government deer. He will start a road house at Point Rodney. Will it be enough if I send in a copy of the location notices for the reservation made for mission and school purposes to the land office at Sitka? I have measured same, but not surveyed it.

Mrs. Brevig sends her regards.

With wishes of a safe voyage home, I remain,

Yours, respectfully,

T. L. BREVIG.

Dr. SHELDON JACKSON,

Nome, Alaska.

HERD AT TELLER STATION.

TELLER, ALASKA, *August 28, 1900.*

DEAR SIR: Things are about the same as when you left. Per Anti arrived on the *Bear*. For this herd he was not needed, as all the herders had then moved to the herd with a man each. He was sent to the herd, and the natives were told that as they had been found negligent and seemed not to care for the reindeer, Anti was sent to take their reindeer. Sara was left here by the *Bear* until the return from Point Barrow. Supplies were also left for the natives. A stampede has been on for two weeks to the "Bluestone" and "Coogrock," and there seems to be something in the last reports. Teller City is deserted, and the town seems now to be across the entrance, at Nook.

I find that Kjellmann has 15 or 17 deer in the herd, the increase from females bought from Tautook and Sekeoglook two years ago. The three herders seem to have about the same number of deer they had two years ago, and the same number of fawns they had then; nearly all the males have been disposed of in some way. Two more deer have died of hoof disease. The fawns belonging to the natives have been marked, and the young males castrated. The sickness has about disappeared. An old woman died at the station Saturday the 25th, and in the night a man committed suicide in a tent on the beach,

leaving two orphan girls. My orphans are now nine in number, and have been removed into a room fixed up for them in the main building. Mr. Anti will probably be sent to take charge of Mary's herd, which will be moved toward Cape Douglas, and Mary herself will move out on the coast between Cape Douglas and the sand spit. The *Patterson* is now anchored outside the station engaged in surveying this part of the coast.

With greetings, yours, truly,

T. L. BREVIG,
Teller, Alaska.

Dr. SHELDON JACKSON,
Washington, D. C.

TELLER CITY GROWING.

TELLER, ALASKA, *September 15, 1900.*

DEAR SIR: Received yours from Seattle the 12th.

At Bering City, now Point Clarence City, I appointed Mr. Whitsen deputy postmaster. The new Teller is booming; the old one yet shows two tent sticks. Gold has been found on the Bluestone and tributaries and on the "Coogrock." The *Bear* took on 45 deer for St. Lawrence, 30 females and 15 males, of which two were broken sled deer. Sara refused to work. I had him work one day bringing home shoe grass, and he demanded \$2 for it, which I paid him. I yet have two patients—a boy and an old woman, besides a paralyzed man. We have taken our old girl Komokee and child into the station again. Tomcod is abundant this year, and with the assistance sent in by the Government I think the natives will pull through the winter.

Tah nee nah, Mrs. Wocksock's brother from Cape Prince of Wales, was here and demanded the reindeer and Ablikok (the boy), and was very brusque when he was briefly told the boy and the deer would remain where they are. Dogs are shot around the deer herd almost every day. Have not heard anything definite what will be done with Mary's herd, and the Laplander Anti is still here. The last six weeks have been one continuous storm, and I have never seen so much rain fall in Alaska during one storm as the last. The *Bear* was here five days to get the few reindeer, and took only 45 because the weather was so stormy.

Johan Tornensis reports that the United States marshal recently appointed has jumped his town lot in the new Teller City, taken his tent, and torn down my notice in regard to the dogs. Will investigate this when I go over to-morrow. The herd will be moved the next week.

Yours,

T. L. BREVIG.

Dr. SHELDON JACKSON,
Washington, D. C.

TELLER HERD REMOVED TO WINTER PASTURAGE.

TELLER, *September 30, 1900.*

DEAR SIR: The deer have been moved and the disease has moderated, 3 only being sick now, sixteen in all having died from foot-rot, 12 belonging to the Government. Johan Tornensis is giving some trouble, as he has proved himself not entirely trustworthy in some things, and his wife is the main cause. Sekeoglook is very sick, and may die. The marshal may settle the town-lot matter peaceably. An old woman died at the station on the 29th instant.

Cockrook, one of my herders, shot himself through the arm with a .44 rifle, in taking the rifle out of the boat in moving the herd, on the 18th. He is doing well; but as the bone was touched it may take some time before he recovers. My time has been so taken up with looking after the sick deer and herd, or rather the cranky Lapp, the sick, etc., that I have not had time to open the school regularly, but have had evening school at times.

Tomcod is in plenty now. We caught 2,500 pounds the other evening.

All in the family are well. With kind greetings,

Respectfully,

T. L. BREVIG.

Dr. SHELDON JACKSON,

Washington, D. C.

 HOOF DISEASE IN TELLER HERD.

[Page 18.]

TELLER, ALASKA, *October 5, 1900.*

DEAR SIR: The *Dora* will call at "Teller City" on her last trip this season in about four days, and hence, also, our last mail goes out. The hoof disease is rather bad among the deer; owing partly to the continuous rainy and mild weather. No ice has formed on creeks and lagoons yet. I have now appointed Per Anti as a nurse, together with Dunnak. He is to gather all the sick deer, keep them separate from the rest of the herd, and only have them to care for. Since last report 7 have died—5 Government deer and 2 belonging to Sekeoglook. Five are yet unable to follow the herd.

Johan's wife has proved herself a "Xantippe" and Johan himself not to be exactly truthful on all occasions. The post-office war still rages. An old woman died September 30 at the station.

Yesterday I took four more children into the flock—two grown girls and two small boys, brothers and sisters, orphans—filling the house with young people. A doctor from town examined Cockrook's arm a few days ago and pronounced the bone shattered and that he would be a cripple. It may be so, but I will yet hope for a better result.

The doctor referred to, Dr. Mechune, has begun religious work of some kind in the city and will stay there all winter.

The roof is leaking nearly all over and all the pails, cups, and pans available are in constant demand during showers. Material wherewith to fix it is lacking. The *Bear* is expected any day on her last trip this season. The *Patterson* made her farewell call to-day. Will write whenever there is an opportunity during the winter, and hope to be able to state that the foot disease has not extended to any more deer.

The family are all well and join with me in extending regards to you and Mr. Hamilton.

Respectfully,

T. L. BREVIG,
Teller, Alaska.

Dr. SHELDON JACKSON, *Washington, D. C.*

DEPUTY MARSHAL AT PORT CLARENCE NOTIFIED THAT THE
REINDEER HERD WAS IN CHARGE OF MR. T. L. BREVIG.

[Page 16.]

U. S. STEAMER BEAR,
Teller, Alaska, July 16, 1900.

SIR: I have the honor to inform you that the Government has placed the reindeer herd around Port Clarence and vicinity under the supervision of United States Commissioner T. L. Brevig, of Teller, and ask you as a Government official to caution the citizens of your place and miners traveling through the country from any interference with them, as such interference will render said person or persons liable to arrest and punishment.

Asking your hearty cooperation in the protection of Government property, I remain,

Very truly, yours,

FRANCIS TUTTLE,
Commanding U. S. S. Bear.

DEPUTY UNITED STATES MARSHAL,
Bering City, Alaska.

DEATH OF TUMASOCK.

[Page 14.]

THE UNITED STATES INDIAN INDUSTRIAL SCHOOL,
Carlisle, Pa., April 11, 1900.

DEAR DR. JACKSON: Our little Eskimo girl, Tumasock, died Sunday night. She wished me to tell you "good-bye" and that she knows "Jesus would help her." Her death, though sad, was beautiful; she was so resigned, and was conscious almost to the last. She was very little trouble, and was so good and patient that I think it has taught

some of us a lesson. Everyone liked her, and all was done for her that could be. The other little Eskimos were over to see her, and she bade them all good-bye.

Very truly, yours,

MARTHA S. BAU, *Nurse.*

Dr. SHELDON JACKSON,

Washington, D. C.

REINDEER FOR KUSKOKWIM VALLEY.

[Page 21.]

BETHEL, ALASKA, *August 6, 1900.*

DEAR DR. JACKSON: Your letters in regard to reindeer for the Kuskokwim at hand some two weeks ago. At this date I am on my way to the Yukon to attend to this and other matters of business for the mission, but must return home from here on account of sickness. Will send for the deer as soon as we can. I am the chief enthusiast on this river in regard to the deer, and from our long wait have had much discouragement given me as to their success. We wish to give them at least a fair trial and hope the herd will be large enough to make the business tell. I hope and will strive for the success of the undertaking.

The mining rush to this country is putting the question of how the native is to feed and clothe himself in an emphatic and unavoidable manner. The wild game is fast becoming extinct, and the native must have a substitute food. I believe the deer will eventually solve this problem for many of the people, but there is a present crying need that we trust may find an answer to its prayers, and that is for a school that will teach trades or some handicraft to fit the young for this fast-coming change of resources and food supply.

The mission school has feebly grasped the idea. Its amount of work done has been small, and we do not see from the present orders that the church can or will soon run a suitable school. Can we not, in addition to the deer, have a Government manual training school, teaching some book learning, but for the most part some trade that will fit the young for what is before them? We have between 3,000 and 4,000 people on this river and practically no school.

Having been raised on a farm, it is my belief that along this river there is enough land fit for agriculture to support a much larger population than the native population. The Kuskokwim River in mineral wealth, agricultural possibilities, and transportation facilities will some day surprise the country. I can assure you I welcome the reindeer and any other plans that will open up this country and add to its resources and ability of self-support. The barren tundra seems set apart for the deer, and they should be there. The river valley offers inducements to the man who will farm the hardier plants, and

the mountains for the miner. These lands can lay idle but little longer, for our American blood is fast possessing itself of the land, and a prosperous and wealthy section of Alaska will without doubt be the Kuskokwim.

I am interested in church, school, and the natives' advancement; but the deer, agriculture, and mining all for the Kuskokwim. It seems hard to harmonize the church and the mines, though the church has use for the gold, and for this reason I may be doing less church work another season. Since I am not a man for the pick and shovel, I hope to find plenty to do along the lines above mentioned, and especially the school, should you consider favorably our need.

I am, most respectfully,

J. H. ROMIG, *Superintendent.*

Rev. SHELDON JACKSON, D. D.,

Commissioner of Education, Alaska.

REPORT OF EXECUTIVE OFFICER OF CUTTER BEAR ON REINDEER BARTER GOODS.

[Page 26.]

U. S. STEAMER BEAR,
St. Michael, Alaska, September 24, 1900.

MY DEAR DOCTOR: I have furnished Captain Tuttle with a résumé of the reindeer trade goods, showing what came on board this summer and what has been expended and where the remainder has been landed, according to your directions. He will forward the same to you. Besides this there were landed with Mr. Brevig 3 bags deer legs and 2 deerskins. One bag had been intended for Spriggs, at Cape Smyth, but was overlooked in the hurry of landing his supplies, while the other 2 bags (containing 100 deer legs) and the 2 deerskins were given to me by "Captain Jack," of St. Lawrence Island fame. He turned them over to me the last time we were at Indian Point, with the information that he had purchased them with the goods you had given him to trade with.

I inclose a list showing what I have expended from the reindeer goods since you left the vessel. The two sacks of flour I gave to "Captain Jack," at Indian Point. The other articles I gave to one of the women we took down on the *Bear* to Sitka last year. She wanted these things in addition to what I had brought up for her, and as I have money left belonging to her I took them from your goods, intending to replace them in the States and send them up on the *Bear* next year. I would have purchased them at Nome or St. Michael, but they cost so very much, and I have wanted to expend the money belonging to the native witnesses so that they would get as much out of it as possible.

I thought you would have acquiesced had you been here, and I acted accordingly. You will find the flour account 6 sacks in excess of what you made it, because the ship owed you 4 sacks, borrowed to buy dogs; and as the ship wanted a coal-oil stove to help pay for dogs I exchanged 2 sacks of flour for the stove. You will find on examining the statement I gave the Captain that the amounts down as coming on board the *Bear* at different times do not agree with some of the lists you furnished me with. I have simply put down what came on board, and Mr. Brevig informed me later that he did not send on board all the articles that you ordered, for some of the boxes had been previously opened and the contents partially used, and some of the articles he could not find, in the confusion, in his storehouse.

On your list you have some boxes of smoking tobacco down as coming on board at Unalaklik the time the steam launch went up to the station. But 3 boxes came on board, and these were claimed by the Lapp family we took to St. Lawrence Island. So much for the barter goods.

Now, regarding the purchase of reindeer in Siberia for next year. I have been talking over the matter with Jarvis, and he agrees with me that I had better be on the ground as soon as possible, even if I have to wait at the other end, which means that I should be in Washington to arrange for the trip as soon as I can.

I think from the way the season looks now that the middle of October will find us either on our way, or starting, for Dutch Harbor. That means we should be in Seattle by the first week in November, for Seattle will be our first stopping place. Counting our stay there and the trip to Frisco, we will probably not reach that latter place until the last of November. And I would like if I were ordered to proceed to Washington by way of Frisco, for I left all my clothes at Foster's in Frisco, and would have to go there before taking the train east. Of course, I could be ordered to leave after the *Bear* arrives in Frisco, but there is no telling when the ship will get there, and that would be much time lost. I might say in closing that the Lapps who were at Point Hope are on board, and the Captain has said several times that he does not know what to do with them when we get to Seattle, and that, though there is a year's salary due them, for which they have signed vouchers, they have not at the present time sufficient money to take them to New York City.

Very respectfully,

E. P. BERTHOLF.

Dr. SHELDON JACKSON,

General Agent Bureau Education in Alaska.

Account of reindeer-trade goods left on the Bear.

	On board July 21, 1900.	Taken at—				Total.	Expended.	Remaining.	Left at—		Remarks.
		Teller, Aug. 1.	Unalaklik, Aug. 4.	St. Michael, Aug. 6.	Nome, Aug. 9.				Teller.	St. Lawrence Island.	
Crockery barrel..	1					1		1	1		
Brass kettles	17					17		17	17		
Fox traps..... barrels..	2					2		2	2		
Fox traps..... box..	2					2	1	1	1		
Tobacco, box, large..	29					29		29	29		
Tobacco, box, small..	4					4		4	4		
Accordions in box..	8					8		8	8		
Lead in box.....	4					4	1	3	3		
Hatchets in box..	6					6		6	6		
Adzes in box.....	6					6		6	6		
Adze handles.....	5					5		5	5		
Coal-oil stoves..... box..	3					3	1	3	3		
Brass shells..... do..	1					1		1	1		
Molasses..... kegs..	3		10			13	5	8	8		
Tea..... boxes..	2					2		2	2		
Tea..... chests..	0.32		3			3.32	0.44	2.88	2.88		
Flour..... sacks..	26+6		54	106		192	65	127		125	2 given to Soblok.
Rye flour..... do..			26			26		26	3	23	
Saws.....		12				12		12	12		
Axes.....		12				12	2	10	10		
Shot..... bags..		8				8	4	4	4		
Balls of twine.....		24				24		24	24		
Duck and drill..... pieces..	5			6		16	3	13		13	
Calico.....	1	5				6		6		6	
Ticking.....				3		3		3		3	
Russian tobacco..... bag..	1					1		1	1		
Blankets.....	3					3		3	3		
Split peas.....			23			23		23	2	21	
Bread..... pounds..	985					985	600	385		385	
Baking powder..... box..			10			10		10	2	8	
Bacon..... pieces..			25			25		25	10	15	
Boiled oil..... gallons..				25		25		25		25	
Paint..... do..				25		25		25		25	
Tent and poles.....				1		1		1		1	
Stove and pipe.....				2		2		2	1	1	
Box A:											
Small bits.....	41					41		41			
Large bits.....	53					53		53			
Gun wads, No. 12.....	8,000					8,000		8,000			
Gun wads, No. 10.....	8,000					8,000		8,000			
Hinges, large.....	6					6		6			
Draw knives.....	9					9		9			
Braces.....	10					10		10			
Goggles..... dozen..	4					4		4			
Tablespoons..... gross..	3					3		3			
Small scissors, dozen..	2					2		2			
Hatchets.....	13					13		13			
Ripsaws.....	2					2		2			
Box B:											
Reload tools, 30/30.....	4					4		4			
Reload tools, 38.....	1					1		1			
Reload tools, 44.....	1					1		1			
Reload tools, 45, old..	1					1		1			
Box C:											
Hunting knives.....	11					11		11			
Bits..... sets..	4					4		4			
Teaspoons..... gross..	3					3		3			
Tablespoons..... lot..	1					1		1			
Lead ladles.....	4					4		4			
Rasps.....	4					4		4			
Hatchets.....	4					4		4			
Large spoons..... lot..	1					1		1			
Box D:											
Fox traps.....	62					62		62			
Box E:											
Cans (½ lb.) powder.....	35					35		35			
Plugs tobacco.....	5					5		5			
Box 17:											
Fox traps.....	27					27		27			
Iron pots.....	23					23		23			
In one box forward:											
Rifles, 45/70.....	9					9		9			
Rifles, 44.....	4					4	3	1			
Reload tools.....	2					2	1	1			
Cartridges, 45 boxes..	32					32		32			

Account of reindeer-trade goods left on the Bear—Continued.

	On board July 21, 1900.	Taken at—					Total.	Expended.	Remaining.	Left at—		Remarks.
		Teller, Aug. 1.	Unalakleet, Aug. 4.	St. Michael, Aug. 6.	Nome, Aug. 9.					Teller.	St. Lawrence Island.	
In one box:												
Matches tins.	4	—	—	—	—	4	3	1	—	—	—	1 box.
Combs, large, dozen	4	—	—	—	—	4	—	4	—	—	—	
Combs, small do.	4	—	—	—	—	4	—	4	—	—	—	
Pipes	18	—	—	—	—	18	—	16	—	—	—	
Knives	9	—	—	—	—	9	6	3	—	—	—	
Spoons packages	2	—	—	—	—	2	—	2	—	—	—	
Tea spoons gross	1	—	—	—	—	1	—	1	—	—	—	
Spools thread	12	—	—	—	—	12	—	12	—	—	—	
Tobacco pounds	31	—	—	—	—	31	—	31	—	—	—	1 box.
Lead pieces	27	—	—	—	—	27	—	27	—	—	—	
In one box aft:												
Rifles, 30/30	4	—	—	—	—	4	—	4	—	—	—	
Reloaders, 30	2	—	—	—	—	2	—	2	—	—	—	
Reloaders, 44	2	—	—	—	—	2	1	1	—	—	—	
Reloaders, 45	2	—	—	—	—	2	—	2	—	—	—	
Cartridges, 30	300	—	—	—	—	300	—	300	—	—	—	
Gun caps	1,000	—	—	—	—	1,000	—	1,000	—	—	—	
Aft:												
Cartridges, 45/75	—	1,000	—	—	—	1,000	—	1,000	1,000	—	—	1 box.
Cartridges, 45/70	1,200	700	—	—	—	1,900	—	1,900	1,900	—	—	
Cartridges, 40/65	2,000	—	—	—	—	2,000	—	2,000	2,000	—	—	
Cartridges, 44	—	1,650	—	—	—	1,650	1,150	500	500	—	—	
Powder kegs	3	—	—	—	—	3	1	2	—	2	—	
Powder, 50 ½-pound boxes	—	5	—	—	—	5	1	4	—	4	—	
Shotgun, No. 12	—	1	—	—	—	1	—	1	—	1	—	
Brass shells in box	1	—	—	—	—	1	—	1	—	1	—	
Box powder, 25 ½-pounds	—	3	—	—	—	3	1½	1½	—	1½	—	1 box.
In one box aft:												
Cartridges, 45/92	1,320	—	—	—	—	1,320	—	1,320	—	—	—	
Reloaders, 45/70	2	—	—	—	—	2	—	2	—	—	—	
In box aft:												
Cartridges, 45/70	1,220	—	—	—	—	1,220	—	1,220	—	—	—	
Reloaders, 45/70	8	—	—	—	—	8	—	8	—	—	—	
Reloaders, 44	3	—	—	—	—	3	1	2	—	—	—	
Primers	10,000	—	—	—	—	10,000	5,250	4,750	—	—	—	In bureau drawer.
Package needles	1	—	—	—	—	1	—	1	—	1	—	

Amounts expended from the reindeer trade goods.

	Kay-gah.	At-pully.	Ona-kiuya.	Ojel-lo.	Frank.	Elec-toona.	Tikik.	Coop-er.	Pun-iuktoo.	To-tal.
Flour sacks	10	10	10	5	—	5	6	17	2	65
Molasses keg	1	1	1	—	—	1	—	1	—	5
Drill pieces	1	1	1	—	—	—	—	—	—	3
Bread boxes	1	1	1	—	1	1	—	—	—	6
Powder keg	1	—	—	—	—	—	—	—	—	1
Powder case	—	½	½	—	—	—	—	—	—	1
Shot bags	1	1	1	—	—	—	—	1	—	4
Fox traps	4	6	6	—	—	4	4	—	—	24
Tobacco box	1	1	1	—	—	1	—	—	—	4
Tea pounds	4	5	5	—	—	4	4	—	—	22
Lead pieces	80	50	50	—	—	40	—	—	—	220
Primers	1,000	1,000	1,000	—	—	500	750	—	—	4,250
Rifle, 44	—	1	1	—	—	—	—	—	—	2
Reloading tools	—	1	1	—	—	—	—	—	—	2
Cartridges, 44 boxes	—	5	5	—	—	2	—	—	—	12
Knives	—	3	3	—	—	—	—	—	—	6
Matches tins	1	½	½	—	—	½	½	—	—	3
Pipes	—	1	1	—	—	—	—	—	—	2
Axes	—	1	1	—	—	—	—	—	—	2
Powder pounds	—	—	—	—	—	5	—	10	—	15
Duck yards	—	—	—	—	—	—	—	5	—	5

In addition, 1 rifle (44), 1 reloader (44), 1,000 primers, 10½ pounds tins powder, 11 boxes 44 cartridges, 3 boxes tobacco, for native witness; 2 sacks flour to Captain Jack.

REINDEER BARTER GOODS.

U. S. STEAMER BEAR,
Nome, Alaska, October 1, 1900.

MY DEAR DOCTOR: In sending my letter to you, telling you about the final disposition of the barter goods, I neglected to inclose the list of barter goods. Inclosed find the same.

Yours, respectfully,

E. P. BERTHOLF.

Dr. SHELDON JACKSON, *Washington, D. C.*

REPORT OF CAPTAIN TUTTLE, R. C. S., COMMANDING CUTTER BEAR
ON TRIP TO POINT BARROW.

[Page 17.]

BEAR,
St. Michael, Alaska, September 27, 1900.

DEAR SIR: Upon our return from Point Barrow I found your letter from Unalaska at Nome. We had a quick and pleasant trip; no ice in sight and but little fog. Dr. Marsh and family came down with me, and left immediately for Seattle. Point Barrow natives had not been afflicted with the prevailing epidemic. Dr. Marsh was to report to you about the herd.

Point Hope had many deaths and much suffering. Dr. Driggs was very glad of the relief I was able to give him. The Laplander and his family came on board and are still here. Yesterday he came to me and asked if they could not go down on the army transport *Seward*. I will see General Randall about it. He signed the vouchers you left, as he insists he had been at work during the year. At Cape Blossom Mr. Samms had a number of destitutes on his hands. He was given a portion of the relief stores, and to still further help him I took away nine of the stranded white people.

Cape Prince of Wales will have many destitute, so Mr. Lopp has been given a good supply. Teller Reindeer Station is a regular orphanage. We have given Mr. Brevig a good supply and will take him still more. Jarvis is here shipping supplies to the destitute on the Lower Yukon. We had a hard time getting the deer from Port Clarence to St. Lawrence. Nineteen days on the trip, being delayed by about the worst weather I ever saw up here. Forty-five deer were taken on board; they were so large and had such enormous antlers that there was not room for more. It was very rough at the time, and the boat partly filling with water two were drowned. During the trip another took sick. The Lapps said it would die, so its throat was cut and the animal put out of misery.

After many stormy days the stores and all but $4\frac{1}{2}$ tons of coal were landed. Mr. Doty, having received information of the serious state of

his mother's health, decided to leave. We took him to Nome, and he left within a few hours for Seattle. It had been his intention to remain a few days at Nome; therefore I turned over the matter of the organ—it had been too rough to attempt getting it on board—and the documents to him. He had decided to sell it if a purchaser could be found. In the hurry of getting away he carried all the papers with him. As he was going direct to Washington, I presume he has given you all the information you are in need of.

I called at Golovin the other day. The Lutherans have a number of orphans and destitute. Owing to the number of saloons started where they now are, they propose removing down behind Carolyn Island, about 8 miles from the village, and nearer the deer herd. I think it is a good move. They were grateful for the help promised them. As yet we have had no cold weather, but lots of wind and rain. The *Manning* left yesterday for Sitka, *Rush* is at Nome, *McCullough* and *Bear* here. I hardly expect to get away before the last of October. Mr. Bertholf has worked hard over the reindeer goods. He boxed and labeled what were left and sent them ashore at Teller Station. Inclosed is his summary.

Teller City, on Grantley Harbor, is a rising place. About 500 will winter there, as it is near the last great strike in the Bluestone country. The last great storm has finished Nome as a seaport; \$700,000 damage in a few hours. The talk is now of a railroad to Port Clarence. It is the only scheme. Jarvis has the matter of Mary's herd in hand. I found her in Nome in tow of a Swede, who I heard intended to marry her to get the herd. I put Jarvis on his track, but as yet have not heard what he did.

I heard from Mrs. Tuttle quite recently. Am glad to say her health is a little better. With kindest remembrances to Mrs. Jackson and yourself, I remain,

Yours, sincerely,

FRANK TUTTLE.

Dr. SHELDON JACKSON,

Bureau of Education, Interior Department.

CORRESPONDENCE CONCERNING THE CHARTER OF A STEAM SCHOONER IN JAPAN.

[Page 9.]

FEBRUARY 21, 1900.

MY DEAR SIR: In the introduction of reindeer into Alaska by the United States Bureau of Education, Department of the Interior, we find that the rush to the gold mines of Alaska and other causes have created such a demand for vessels on the Pacific coast that charters have gone up to prices that we can not afford to pay with our small appropriation. The same causes have thrown increased duties on the

revenue cutter *Bear* (which has in the past greatly assisted us), so that we can not have her help.

After a conference with Commander Katsuro Narita, I. J. N., naval attaché, Japanese legation, we have come to the conclusion that we will have no difficulty in chartering a suitable steamer in Japan at reasonable rates for the transportation of reindeer for the United States Government from Siberia to Alaska during the coming summer. To ascertain this and to learn approximate rate of charter, I have the honor to respectfully request that you cable the consul at Yokohama, Japan, for information.

Very truly, yours,

SHELDON JACKSON,

United States General Agent of Education in Alaska.

Hon. THOMAS W. CRIDLER,

Third Assistant Secretary of State,

State Department, Washington, D. C.

OFFICE OF SECRETARY OF STATE,

Washington, D. C., February 21, 1900.

[Page 9.]

TO CONSUL-GENERAL,

Yokohama, Japan:

Ascertain if freight steamer can be chartered in Japan for work Bering Sea, May to August. Five to eight hundred tons gross; two decks; clear main and between decks; 10 knot; fully manned and provided. Cable rate by day.

CRIDLER,

Third Assistant Secretary of State.

[Page 9.]

CONSULATE OF THE UNITED STATES,

Yokohama, March 10, 1900.

SIR: I have the honor to acknowledge the receipt of the Department's telegram of yesterday, worded:

Cable reply my telegram twenty-first ultimo touching charter Japanese freight steamer. Cridler.

In answer thereto, I have to-day telegraphed:

Secretary State, Washington. Can not charter steamer *Japan*. Gowey.

In further explanation, I have the honor to report that since the receipt of the Department's telegram of February 21, I have had three ship brokers busy trying to find a vessel answering the requirements, and had nearly succeeded in obtaining an option on a steamship belonging to the Japan Mail Steamship Company (*Nippon Yusen*

Kaisha). To-day I am finally informed that this vessel can not be spared. My inquiries have covered all likely vessels in Japanese waters.

I have the honor, etc.,

JOHN F. GOWEY,
Consul-General.

Hon. DAVID J. HILL,
Assistant Secretary of State.

[Page 9.]

DEPARTMENT OF STATE,
Washington, April 14, 1900.

SIR: Referring to your letter of February 21, last, and to my reply of March 10, in regard to chartering a steamer at Yokohama for work in Bering Sea, I inclose for your information a copy of a dispatch from the consul-general at Yokohama in which he reports that he made every effort to obtain such a vessel but was unsuccessful.

I am, sir, your obedient servant,

THOS. W. CRIDLER,
Third Assistant Secretary.

SHELDON JACKSON, Esq.,
*United States General Agent of Education in Alaska,
Bureau of Education, Department of the Interior.*

[Page 9.]

DEPARTMENT OF STATE,
Washington, April 23, 1900.

SIR: I have to inclose herewith for your consideration, having regard to my letter of the 14th instant, a copy of a letter from Mr. J. Johnstone, dated Yokohama, March 30, 1900, relative to the possibility of chartering the steamship *Iyo Maru* for summer service between Alaska and Siberia.

The Department will be glad to transmit whatever reply you may think advisable to indicate.

I am, sir, your obedient servant,

THOS. W. CRIDLER,
Third Assistant Secretary.

WILLIAM T. HARRIS, Esq.,
Commissioner of Education, Washington, D. C.

[Page 9.]

YOKOHAMA, *March 30, 1900.*

SIR: Being advised at the United States consulate-general, in this city, that you are desirous of chartering a small steamer to be employed

for a couple of months or so between Alaska and Siberia, and recommended to put before you any suitable vessel offering, I beg to inclose herewith particulars of the steamship *Iyo Maru*, which I trust may answer your requirements. The owner's quotation for two months time charter, upon customary conditions, is 5,000 yen¹ per month, and his offer is subject to the vessel being free at the time of your instructions reaching Japan. I may say that it is impossible to get owners to make firm offers unless subject to reply within two or three days, but I have no doubt that if I may submit offers to your consulate general here, I could, failing the *Iyo Maru*, find a similar steamer for you upon receipt of instructions to that effect.

I am, sir, yours, faithfully,

J. JOHNSTONE.

Hon. THOMAS W. CRIDLER,

Third Assistant Secretary of State, Washington, D. C.

[Page 9.]

YOKOHAMA, JAPAN, *March 31, 1900.*

PARTICULARS OF SCREW STEAMER.

Name, steamer *Iyo Maru*; description, screw; iron or steel, steel; rig, schooner; where and when built, Koolie, November, 1897; builder's name, Kawasaki Dock Company; gross register, 727; net register, 451; length over all, 188 feet; length B. P., —; breadth, 26 feet; depth, 19½ feet; draft, laden, 15.5 feet; light, 11 feet; number of bulkheads, 4; number of holds, 4; number of hatchways, 2; dead-weight capacity, exclusive of bunkers, 500 tons; capacity of coal bunkers, 45 tons; number of decks laid, 2; water ballast, 113 tons (F. P. T., 54 tons; T. F., 35; A. P. T., 24); crew accommodation, ample; passenger, first-class, 8; second-class, 43; third-class, 264.

Engines and boilers.—Description of engines, triple expansion; age and condition, 1897; horsepower, nominal, 93; average speed, 11 knots per hour; donkey engine, 1; number and description of boilers, 1; age and condition, 1897; average consumption of fuel per day, 13 tons; donkey boiler description, 1; steam winches, 2.

Remarks.—Lighted with electric light throughout.

[Page 9.]

SEATTLE, WASH., *April 30, 1900.*

TO COMMISSIONER EDUCATION,

Washington, D. C.

Offer Japanese steamer too late for this season.

SHELDON JACKSON.

¹ One yen equals 49.8 cents United States currency.

APPLICATION FOR TRANSPORTATION OF LAPPS ON U. S. ARMY
TRANSPORT LAWTON.

[Page 38.]

PORT CLARENCE, ALASKA, *July 17, 1900.*

SIR: In 1898 the War Department, U. S. A., brought to Alaska some 63 Lapps, Finns, and Norwegians, under a two years' contract, one condition of which was, that, at the expiration of two years, such as wished were to be returned to Lapland, Norway.

Accordingly 20 to 25 have notified me that they wished to so return. I have the honor, therefore, to respectfully request that you will issue the necessary instructions that will furnish the Lapps and myself transportation on one of the transports to Seattle, during August or early in September. The Lapps are near Unalaklik, the Government reindeer station, 50 to 60 miles north of St. Michael.

Very respectfully,

SHELDON JACKSON,

United States General Agent of Education in Alaska.

General RANDALL, U. S. A.

SIR: In accordance with your verbal permission of August 6, I have the honor to turn over to you, for transportation to the States, the following persons: Aslak Bals, wife, and two children, 7 and 8 years of age; Johan Nango, wife, and two children, 3 years and 6 months old; John Eira and wife; Anders Biti, wife, and infant; Aslak Gaup, wife, and infant; Alfred Hermansen, wife, and infant; Lars Larsen Hatta; Per Porsanger; Anders Utzi; John Rista and wife; Isak Tonnensis.

Kindly issue army rations to the party and charge the same to the United States Bureau of Education, Washington, D. C.

There may be two or three others at Nome to join the party at Nome. I can not say at this writing.

The above are a portion of a party of Lapps and others, hired by the War Department in 1898 for two years, with an agreement that the United States Government will send back to Lapland such as wish to return. In 1899 they were transferred to the Interior Department for the use of the Bureau of Education in its reindeer work.

Thanking you for your assistance in the matter, I remain,

Very respectfully, yours,

SHELDON JACKSON,

United States General Agent of Education in Alaska.

WILLIAM M. PINKSTON,

Quartermaster's Agent, U. S. A. T. Lawton.

[Page 39.]

MONTREAL, QUEBEC, *September 6, 1900.*To W. T. HARRIS, *Commissioner,**Washington, D. C.:*

Telegram received. Will instruct Liverpool agents assist Laplanders transfer to Hull, thence Norway, and advise them that money will be paid by United States consul, Liverpool.

A. ALLAN.

[Page 39.]

DEPARTMENT OF STATE,

Washington, September 12, 1900.

SIR: I have the honor to acknowledge the receipt of your letter of the 8th instant asking that the consuls at Liverpool, Hull, and Bergen be instructed to expedite the journey to Norway of 25 Laplanders whom this Government is returning to their homes.

In reply I have to say that as instructions sent by mail to the consuls would not reach them in time, the Department cabled them to assist the Laplanders and see that they proceeded safely on their journey.

I have the honor to be, sir, your obedient servant,

DAVID J. HILL,

*Acting Secretary. **

The SECRETARY OF THE INTERIOR.

CANADIAN INTEREST IN REINDEER.

[Page 25.]

HALIFAX, NOVA SCOTIA, *May 25, 1900.*

SIR: I would take it as a favor if you could kindly send me Dr. Sheldon Jackson's report for 1900 on the introduction of the reindeer into Alaska. He has sent me all previous to this year.

We think very highly of Dr. Jackson's work in Canada, and when the opportune time comes we will ask from the Government for a large grant to do in our own great Northwest the work you have so successfully done in Alaska.

* * * * *

Your work in Alaska through Dr. Jackson appears to be ideal in every respect. At three different points I have written Canadians to look carefully into his work, and find that it is as highly prized in the mining camp as among scientists.

Our coast line from 142° to the mouth of the Nelson, some 3,000 miles, is without a single school, and I hope to do something for the poor Esquimaux through schools and the reindeer.

Very truly, yours,

J. T. BULMER.

The SECRETARY OF THE INTERIOR.

REINDEER AS A FACTOR IN TRANSPORTATION IN ALASKA.

By Mrs. ALICE PALMER HENDERSON,

In The Alaskan Magazine for March, 1900.

In an article on "Transportation, past and present, in Alaska" Mrs. Henderson thus speaks of the reindeer:

Great as has been the ridicule on the part of the uninformed, or partially informed, heaped upon the "reindeer fad" in Alaska, the fact is indisputable that if herds of trained reindeer were to be had in the Klondike this winter there would be a tremendous saving of life, strength, time, and energy. Reindeer are swifter than horses, need no care or protection, and find their own food as they travel. They detect the moss under the snow and dig it up. This reindeer moss covers far the greater part of all Alaska, and would support 10,000,000 head of reindeer—animals which are useful to the last hair. * * *

Reindeers' speed is thrice that of dogs, and it is not necessary to carry their food, as for dog teams.

William Kjellmann, of Port Clarence, three years ago made a trip with reindeer which proved beyond all cavil that transportation in Alaska would be solved by the general importation, breeding, and training of reindeer. Accompanied only by two Lapps, Mr. Kjellmann left Point Clarence, near Bering Strait, December 15, 1896, and traveled 1,000 miles across a trackless country, over tundras and mountains, glaciers and frozen rivers, to the Kuskokwim Valley, and returned April 25, 1897. The deer were driven every day on this 2,000-mile trip, and had worked hard the previous part of the winter, too. Their best record was 95 miles in one day. The deer travel better by dark than by daylight, for they are very timid and keep close together, following the speediest. They never walk—don't seem to know how—and go straight ahead, no matter what the obstacle.

Reindeer must be trained by those who know their business and handled by people accustomed to them. This was conclusively proven last winter by the experience of Lieutenant Spaulding's detachments, who went by reindeer express from St. Michael to Nome. The soldiers were raw recruits and the reindeer were green to match. The mix ups were extremely funny to onlookers.

In contiguous Siberia, in Lapland, and in Norway reindeer transportation has been common for centuries. Alaska, with similar climate and inexhaustible quantities of their moss, need but to hurry herds into the country to furnish individuals both transportation and food.

[S. Doc. No. 66, Fifty-fifth Congress, third session.]

RELIEF EXPEDITION TO THE ARCTIC OCEAN.

To the Senate and House of Representatives:

It will be remembered that in the month of October, 1897, reports were received here of the probable loss of the whaling fleet in the arctic regions, and of the likelihood that nearly three hundred men, composing the officers and crews of the fleet, would perish from hunger unless succor could reach them early in the spring.

The revenue-cutter *Bear* was known to be en route from the Arctic Ocean to Puget Sound, Washington. Her arrival was anxiously awaited, as no other suitable Government vessel could be made available for arctic work. That ship arrived at Seattle, Wash., on the 6th of November, after a six months' cruise in the Arctic, and I at once ordered an expedition prepared for the relief of the imperiled whalemén.

The preparation of the *Bear* was commenced on the 11th of November, under the direction of the Secretary of the Treasury. Her officers and men, of the Revenue-Cutter Service, all volunteered for the perilous work, and the ship was completely fitted out, and under the command of Capt. Francis Tuttle, of the Revenue-Cutter Service, sailed on her errand of mercy November 29, 1897, within nineteen days from the inception of the movement.

The plan of the expedition was briefly as follows:

The ship was to be fully provided with rations for the ice-imperiled whalemén, which were to be conveyed to them as soon as the ice conditions in Bering Strait would permit the passage through. An overland expedition was to be landed from the *Bear* as soon as practicable at some point on the coast of Alaska in Bering Sea, to be determined upon by Captain Tuttle. The problem of getting food to the imperiled people at the earliest time possible was the all-important consideration, for it was fully understood that the *Bear* could not, under the most favorable conditions of ice navigation in that region, reach their neighborhood before the following July or August. The utter lack of transportation of any kind in this far-off land suggested the idea, which was adopted as the only possible plan, of driving reindeer overland, to be slaughtered on arrival, for food to last until the arrival of the *Bear* with supplies the following summer. The reindeer

were to be collected by the overland expedition from several points in Alaska, notably Cape Prince of Wales and Point Rodney, and, with such aid as could be procured from natives and others, driven to Point Barrow.

The overland expedition was formed, and consisted of First Lieut. David H. Jarvis, Revenue-Cutter Service, commanding; Second Lieut. Ellsworth P. Bertholf, Revenue-Cutter Service, and Dr. Samuel J. Call, surgeon of the *Bear*, all volunteers. This overland expedition was landed from the *Bear* at Cape Vancouver in Bering Sea, Alaska, on the 16th of December, 1897, and commenced its toilsome and dreary journey through an arctic night to Point Barrow, Captain Tuttle returning with his command to winter at Dutch Harbor, Alaska, and from there to take advantage of the first opportunity in the early summer of 1898 to get north.

The overland expedition worked its way to the reindeer stations named, and succeeded in getting together about 450 deer. They were materially aided by Mr. W. T. Lopp, agent of the American Missionary Society at Cape Prince of Wales, and Artisarlook, a native of that region, both of whom, at great personal sacrifice, left their families and accompanied the reindeer herd to Point Barrow.

The overland expedition, after a difficult and hazardous journey of nearly 2,000 miles through the storms and bitter cold of an arctic winter, reached Point Barrow with the herd on the 29th day of March, 1898, three months and twelve days from their landing from the *Bear* at Cape Vancouver, Alaskan coast of Bering Sea. They arrived none too soon. From the lack of an authoritative head, supplemented by bad sanitary conditions and want of proper food, the men from the whale ships quartered there were found upon the verge of great suffering, while sickness had broken out among them. Lieutenant Jarvis, under the instructions given him by the Secretary of the Treasury, at once assumed charge, in the name of the Government, of the camp and locality of Point Barrow, and he and Dr. Call devoted themselves with intelligent energy to correcting the wretched conditions found to exist. Order was at once inaugurated. Fresh meat from the reindeer herd was supplied, the sanitary conditions were improved, and the general health and comfort of the whalers received immediate attention. Lieutenant Jarvis and Dr. Call remained at Point Barrow in charge until the arrival of the *Bear*, July 28, 1898, a period of four months.

As soon as the *Bear* arrived Captain Tuttle began the distribution of ample supplies to the whalers on shipboard and on shore. Having supplied all demands generously, succored the needy to the number of 275 between Point Barrow and Kotzebue Sound, taking on board the *Bear* 146 whalers, 91 of whom were brought to the Pacific coast (the remainder having, of their own volition, left the ship en route), the vessel arrived back at Seattle on the 13th of Sep-

tember, after an absence in the bleak and dreary regions of Bering Sea and the Arctic Ocean of about seventeen months.

The hardships and perils encountered by the members of the overland expedition in their great journey through an almost uninhabited region, a barren waste of ice and snow, facing death itself every day for nearly four months, over a route never before traveled by white men, with no refuge but at the end of the journey, carrying relief and cheer to 275 distressed citizens of our country, all make another glorious page in the history of American seamen. They reflect by their heroic and gallant struggles the highest credit upon themselves and the Government which they faithfully served. I commend this heroic crew to the grateful consideration of Congress and the American people.

The year just closed has been fruitful of noble achievements in the field of war, and, while I have commended to your consideration the names of heroes who have shed luster upon the American name in valorous contests and battles by land and sea, it is no less my pleasure to invite your attention to a victory of peace, the results of which can not well be magnified, and the dauntless courage of the men engaged stamps them as true heroes whose services can not pass unrecognized.

I have, therefore, the honor to submit the following recommendations and to ask your favorable action thereon:

1. That the thanks of Congress be voted to Capt. Francis Tuttle, Revenue-Cutter Service, and the officers and enlisted men composing his command, for their able and gallant services.

2. That the thanks of Congress be extended to the members of the overland expedition, First Lieut. David H. Jarvis, Revenue-Cutter Service, commanding the overland expedition; to Second Lieut. Ellsworth P. Bertholf, Revenue-Cutter Service, and to Dr. Samuel J. Call, surgeon.

3. That gold medals of honor of appropriate design, to be approved by the Secretary of the Treasury, be awarded to Lieutenants Jarvis and Bertholf and Dr. Call, commemorative of their heroic struggles in aid of suffering fellow-men.

4. That the sum of \$2,500 be appropriated to be disbursed by the Secretary of the Treasury in bestowing rewards upon W. T. Lopp, Artisarlook, and native herders who rendered material aid to the relief expedition.

WILLIAM MCKINLEY.

EXECUTIVE MANSION, *January 17, 1899.*

EATON REINDEER STATION, ALASKA,

November 27, 1900.

DEAR SIR: I take this opportunity of making a short report of the work of the station. Upon the receipt of your telegram instructing

me to furnish deer to the Nulato Mission, I immediately sent to Nome instructing Mr. S. Newman Sherzer to secure two Lapish herders and make arrangements for their transportation to the station. I kept in reserve the men whom I had selected for the Kuskokwim Mission herds expecting a guide to come from there so that I would be able to send them their herds immediately. So far no one has yet come from the mission, and the men are being employed with work at the station while waiting.

The two Laplanders whom I sent for at Nome were not able to take ocean passage on account of the lateness of the season, but arrived here by means of dog-team transportation on the 23d instant.

Upon hearing of the great amount of snow which had fallen between here and the Yukon, I decided on the 11th instant to make a trip to ascertain the condition of affairs. I found that the reports of the great amount of snow were well founded, yet considered it possible to even then move the herd of deer over the portage to Nulato, although on the level the snow measured from 30 to 40 inches. Before I was able to return, which was on the 19th instant, rain fell continuously for two days, which slightly lessened the depth of snow. Soon after the rain stopped it turned cold, which has caused the snow for several inches to become almost as compact as the same amount of ice. This condition of affairs makes it impracticable to drive a herd of deer to Nulato even should we find the snow different after reaching the destination.

On the 20th instant I started for St. Michael for the purpose of conferring with Rev. J. S. Treca, S. J., but was not able to talk with him, as he had gone to the Yukon for a short visit.

I have requested Mr. N. V. Hendricks to write me as to the condition in which he finds the trail on his passage over it, and also to observe the amount and condition of snow in the vicinity of Nulato. He has promised to do as I have requested.

Should it at any time seem practicable to drive the herd over during the winter or early spring it shall be done.

I will try and make satisfactory arrangements with the Catholics at Nulato, and have them accept the herd and leave it on the coast, where at present the tundra is entirely free from snow and ice. I will write you fully in regard to everything that is done.

The accompanying letter will explain itself in regard to aid being asked by the officers of the War Department to assist in construction of the telegraph line between St. Michael and Kaltag. I have promised to give them what aid I can, as I thought that you would approve of any assistance which I could offer.

The health of everyone is good, and everyone seems to be satisfied.

Very respectfully, your obedient servant,

FRANCIS H. GAMBELL.

Dr. SHELDON JACKSON,

General Agent of Education in Alaska, Washington, D. C.

HEADQUARTERS DEPARTMENT OF ALASKA,
Fort St. Michael, Alaska, November 23, 1900.

SIR: I am instructed by the department commander to advise you that the War Department has at present between Unalaklik and Kaltag, on the Yukon River, three construction parties, aggregating about 110 officers and enlisted men, engaged in the work of building a Government telegraph line between the points named. Recent reports received from these parties indicate that they are having great difficulty in advancing the line, owing to the exceptional weather conditions for this season, with heavy snow followed by thawing and rain, and that the work may have to be suspended temporarily for this season on account of the ration supply being limited.

It is understood that there are a number of sled deer at your station, with Lapp drivers, and the commanding general therefore requests that, if consistent with your instructions and duties under the Interior Department, you will furnish such animals and drivers as you may be able to spare from the herd to use in transporting supplies from Unalaklik to these parties, also from St. Michael to Unalaklik, and otherwise aiding the work of construction in accordance with the detailed outline of work which will be submitted to you by the signal officer of this department.

Lieut. R. S. Offley, Seventh Infantry, has been directed to assume command of all these parties named and will be directed, in case the aid herein requested can be furnished by you, to consult with you upon your return to Unalaklik and inform you just what hauling for his command is most essential and will be of greatest benefit in advancing the work he has in hand.

An early reply is requested.

Very respectfully,

W. B. RICHARDSON,
Captain, Eighth Infantry,
Acting Assistant Adjutant-General.

Dr. FRANCIS H. GAMBELL,

Superintendent Eaton Reindeer Station, Unalaklik, Alaska.

REINDEER RELIEVE TWO DETACHMENTS OF UNITED STATES
 INFANTRY.

EATON REINDEER STATION, ALASKA,
December 14, 1900.

DEAR SIR: I have the honor to inform you that owing to the deep snows upon the portage the two detachments of soldiers under Lieutenants Smith and Grimes, which were engaged in constructing the telegraph line from Kaltag to St. Michael, were unable to move their force. Owing to the fact that they could not reach supplies with

their poor transportation before their provisions were exhausted, I responded to a call made by the army officials, and went to their aid with 36 sled deer and gave them the needed assistance, bringing them through the deep snow to a point where they could be reached by mule teams.

Trusting that this meets with your approval, I remain,

Your obedient servant,

FRANCIS H. GAMBELL,
Superintendent.

Dr. SHELDON JACKSON,

General Agent of Education in Alaska, Washington, D. C.

INDEX.

- Anti, Lars Larsen, death of, 13.
Appendix, 45-165.
Arctic Ocean, relief expedition, 160-162.
Barter goods, reindeer, 148-151.
Bertholf, E. P., on reindeer barter goods, 148-151.
Bethel Station, 12; herd for, 21.
Brevig, T. L., arrival at Teller Station, 12, 139-140.
Canadian interest in Alaska, 25; in reindeer, 158.
Cape Douglas, herd, 16; number of, distribution and ownership, 22.
Cape Prince of Wales, herd, 16, 96-97; number of, etc., 22; trip to, by Dr. Gambell, 81.
Commissioner of Education to Secretary of Interior, 45.
Congressional appropriations for introduction of reindeer, 23.
Dogs, Eskimo, 18; trouble with, 142.
Doty, W. F., supplementary report, 133-134.
Eacrett, wreck of, 109-113.
Eaton Station, annual report of Dr. F. H. Gambell, 48-57; daily journal of, 58-80;
Dr. Gambell's return, 82; herd, 12-15, 87-88; list of employees, 12; reindeer,
number of, etc., 23; school, 13; report on, 163.
Epidemic among natives, Teller Station, 10-11, 141-143.
Eskimo children, mental ability, 100.
Eskimos, diseases, 100-106; drunkenness, 107; epidemic among, 10-11, 141-143; evan-
gelical work among, 107-108; food supply, 108-109.
Evangelical work among natives, St. Lawrence Island, 107-108.
Expenditure of reindeer fund, 1889-1900, 23.
Food supply, 108-109.
Gambell, Dr. F. H., annual report, Eaton Station, 48-57, 163; appointed superintend-
ent of reindeer stations, 11; report on hoof disease, 90-93; return to Eaton
Station, 82; trip to Cape Prince of Wales and Synrook, 81.
Gambell Station, abstract of journal kept at, 114-132; herd, 17; number, distribution,
etc., 22; list of employees, 12.
Germany, reindeer in Black Forest, 25.
Gold, discovery of, 18.
Golovin Bay herd, 23, 51, 95-96.
Henderson, Alice P., on reindeer, 159-160.
Hendricks & Van Note ask for reindeer, harness, and sleds for carrying mail, 93.
Hendrickson, Karl, report on reindeer, 95-96.
Henders for special duty, 85, 86; return home, 12.
Hoof disease among reindeer, 18, 9-93, 145-146.
Itinerary, Dr. Sheldon Jackson, 26-39.
Jackson, Dr. Sheldon, annual report, 9-39; effort to charter a steamer, 9-10; itinerary,
26-39.

- Kjellmann, Wm. A., sickness of, 11.
 Kotzebue Sound, reindeer mail contract, 90.
 Kuskokwim Valley, reindeer for, 147-148; school, 147.
 Laplanders ask for increase of salary, 83; dissatisfaction among, 57; transportation of, 157, 158.
 Lawton, United States Army transport, 157.
 Lerrigo, P. H. J., journal, 114-132; report, 98-114; supplementary report, 132-133.
 Mail service, 24-25, 84-85, 93-94.
 Marsh, H. R., report, 97-98.
 Marshall, Wm. R., journey from Point Barrow to Teller Station with reindeer, 134-139.
 Medical work, St. Lawrence Island, 100-106.
 Moss burning, 19.
 Nulato, herd, 21; reindeer wanted, 90.
 Point Barrow expedition, payment of bills, 139.
 Point Barrow herd, 16, 97-98, 138-139; number, distribution, etc., 22; journey from, to Teller Station with reindeer, 134-139; trip to, by Captain Tuttle, 152-153.
 Point Hope herd, 16; number, etc., 22.
 Port Clarence, epidemic among natives, 10; herd, 51, 146.
 President of United States, message to Congress on expedition to Arctic Ocean, 160.
 Reindeer a factor in transportation in Alaska, 159-160; barter goods, 148-151; breaking, 53-54; Canadian interest in, 158; Congressional appropriations for, 23; death rate, 56; distribution, 20-21; killed, 89; harness and sleds for carrying mail, 93-94; herds, 51, at Bethel Station, 21, Cape Douglas, 16, Cape Prince of Wales, 16, 96-97, Eaton Station, 12-15, 87-88, Gambell Station, 17, Golovin Bay, 95-96, Kuskokwim Valley, 147-148, Nulato, 21, Point Barrow, 17, 97-98, 138-139, Port Clarence, 146, Point Hope, 16, St. Lawrence Island, 21, 132-133, Teller Station, 14-16, 21, 140-141, 143, 145; hoof disease, 18, 90-93, 145-146; increase, 23; journey from Point Barrow to Teller Station, 134-139; killing of, 18-19; laws against killing, 18; mail service, 24; number, distribution, etc., 22-23; purchase of, in Siberia, 21-22; relief of United States infantry, 164-165.
 Reindeer stations, 12-17; personnel, 11-12. *See, also, under* Cape Prince of Wales, Eaton, Gambell, Golovin Bay, Point Barrow, Point Hope, Port Clarence, St. James Episcopal Mission, St. Lawrence Island, Teller.
 Relief expedition to Arctic Ocean, 160-162.
 Revenue-Cutter Service, 25-26.
 Roman Catholic mission, Nulato, reindeer for, 163.
 St. James Episcopal Mission herd, 18, 23.
 St. Lawrence Island, epidemic, 10; evangelical work, 107-108; food supply, 108-109; Gambell Station journal, 114-132; herd, 21, 132-133; medical work, 100-106; order among natives, 106-107; school, 98-100, 132, 134; selling whisky to natives, 107; supplementary report on, 132-134; wreck of Eacrett, 109-113.
 Schools, Eaton Station, 13; Kuskokwim Valley, 147; St. Lawrence Island, 98-100, 132-134.
 Schooner, steam, from Japan, correspondence regarding, 153-156.
 Secretary of Interior, letter of, to President of Senate, 3; letter to, from Commissioner of Education, 45; to Secretary of Treasury, 46.
 Secretary of Treasury, letter to, from Secretary of Interior, 46.
 Secretary of Treasury to officers of Revenue-Cutter Service, 47.
 Senate, action of, 2.
 Sherzer, S. Newman, appointed assistant of reindeer stations, 11; employment of, 80; teaches school at Eaton Station, 13.
 Siberia, purchase of reindeer, 21-22.
 Statistics regarding number and distribution of reindeer, 22-23.

Synrook, trip to, by Dr. Gambell, 81.

Telegraph construction, 87, 164; service, 25.

Teller city growing, 144.

Teller Station, arrival of T. L. Brevig, 139-140; epidemic, 141-143; herd, 14-16, 21, 140-141; removed to winter pasturage, 145; number, etc., 22; hoof disease, 18, 145-146; journey to, from Point Barrow, 134-139; list of employees, 12.

Transmittal, letter of, 3.

Tumacock, death of, 146-147.

Tuttle, Frank, report of, 152-153.

Whisky selling to natives, 107.



